We first proceeded, in the presence of the tribal representatives to trace the boundary (as above decided) on the ground and to fix the sites of the pucca pillars we proposed to erect.

The line is not so clearly defined as might be supposed from a perusal of Messrs. Wallace and Forbes' report (dated 5th May 1896), and we have accordingly thought it advisable to describe it anew. The point where the boundary line leaves the ridge to the east of the Manjrél valley and joins the Loladhér Sham is shown on the map* and marked "A." Near this point on the level ground below the ridge there is an old graveyard, and near this graveyard we erected our first pucca pillar. The line then runs for a few hundred yards along a high stony ridge to a point marked "B" where a second pillar has been erected. It then falls about forty feet and runs in a north-easterly direction along a stony rise (which constitutes the watershed at this point) to a point marked "C" where a third pillar has been erected; from "C" the line curves round, and running in a somewhat more northerly direction and still following the watershed arrives at a point "D" where we have erected our fourth pillar. The pillar at "D" is in the immediate vicinity of a number of Bozdár huts all of which we decided were on the Bozdár side of the boundary. Here the line joins the northern watershed of the Rakhni stream. This watershed runs about due east at right angles nearly to the lie of the valley. The drainage at this point is nearly due north and south. The line follows the watershed to the foot of the low range of hills which lie on the immediate east of the northern extremity of the Rakhni valley. Here we erected our final pillar.

There can be no doubt that the line thus marked out indicates the boundary originally laid down by Messrs. Younghusband and McMahon. After explanation both the Khétráns and Bozdárs accepted it as correct. The boundary line having been disposed of we turned our attention to the alleged encroachment by the Bozdárs into Khétrán territory. That such encroachment has been made there can be no doubt, and it was on account of this encroachment and the question of water therein involved that the bad feeling, which undoubtedly existed between the tribes, had arisen.

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* In pocket at back of book.

Baluchistan District Gazetteer Series.

VOLUME II.

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PREFACE.

The Loralai District was formed in 1903 by taking the Músa Khél and Bori tahsíls from the Zhob District, and the Bárkhán, Duki and Sanjáwi tahsíls from the old Thal Chotiáli (now Sibi) District.

This Gazetteer was compiled by Rai Sáhib Jamiat Rai, assisted by the Gazetteer staff. The sections on Physical Aspects, History and Archæology were revised by me; the section on Forests was examined by Bhai Sádhu Singh, Extra Assistant Conservator of Forests in Baluchistán; that on Police by Mr. E. J. Gleeson, Assistant District Superintendent of Police; and the remainder of the draft was revised by Lieutenant J. A. Brett, Assistant to the Hon'ble the Agent to the Governor-General in Baluchistán. The article on Geology was kindly written for the Gazetteer by Mr. Vredenburg of the Geological Survey of India, and the note on Scenery in Chapter I by Mr. W. S Davis, the first Political Agent of the new District. The complete draft was finally examined and passed by Lieutenant-Colonel C. A. Kemball, C.I.E., Political Agent, Loralai.

In cases where the conditions of Districts were identical material [h]s been reproduced from the Sibi and Zhob Gazetteers, and especially [fro]m the Gazetteer of the Quetta-Pishín District written by Mr. R. [Hu]ghes-Buller, I.C.S. Mr. Hughes-Buller's Census Report of 1901 has [als]o been freely used in writing the important section on Population. [M]uch assistance has been derived from Major Archer's report on the [eas]tern boundaries of the District; Lieutenant L. A. Forbes' report on [th]e temporary settlement of Sanjáwi (1896); report on the settlement [of] the Sanjáwi tahsíl by K. B. Mír Shams Sháh (1901); and the report [on] the claims of the Leghári Chief's family in respect of portions of [the] Bárkhán tahsíl, by Messrs. Crawford and Diack (1897). Other [wo]rks from which information has been extracted are given in the [Bi]bliography at the end of this volume.

Much useful information was supplied in respect to the Bárkhán [tah]síl by the late Lála Hari Rám, Tahsíldár; and thanks are due to [th]e local officials for the promptitude with which all references have [b]een attended to.

QUETTA:
June 1907.

C. F. MINCHIN, *Major*,
Supdt., Dist. Gazetteers, Baluchistán.

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LORALAI DISTRICT.

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CHAPTER I.

DESCRIPTIVE.

PH AS

Situa and dime

Loralai forms an inland District of Baluchistán and lies between 29° 37′ and 31° 27′ N, and 67° 43′ and 70° 18′ E., Its greatest length from north to south is about 108 miles and its breadth from east to west about 136 miles. It covers an area of 7,999 square miles.

Origi name

Its name is derived from the Loralai stream, a confluent of the Anambár or Nári, to the north of which is situated the civil and military station of Loralai, the headquarters of the District.

Boun

On the north Loralai is bounded by Zhob; on the east by Déra Ismáíl Khán and Déra Gházi Khán; on the south by the Marri country; and on the west by the Sibi District.

The eastern boundary of the District with the Punjab was determined on the joint proposals submitted early in 1895, by Captain C. Archer, Political Agent, Zhob, and Mr. Gee, Deputy Commissioner of the Déra Ismáíl Khán District, and approved by the Government of India in the same year. In accordance with this the boundary line which commences at the Chúbar Khél Daháոa runs southward along the crest of the Tor-ghar range till the Zamari country is reached at the watershed known as Khwarai Narai. The boundary then follows this watershed to the main Baspa range, along which it runs north till it turns eastward along the Loe Sharan stream (shown on map as Gajistán river), and joins the Spéra or Sanjar range at Murgháno Dabra, the point at which the Loe Sharan stream crosses that range. The boundary line from here was settled in three bits—(1) from the Sharan Rod to the Ramak stream, (2) from the Ramak stream to the Guzai Kaur or stream, and (3) from the Guzai

stream to Chitr Vatta on the Vihowa river. The first two bits were disputed between the Zamaris and the Ustaránas. To settle this dispute, arbitrators were appointed from both sides, and they decided that the Sanjar range from the Sharan stream to the Guzai Sar should form the tribal boundary; the line was accordingly drawn along that range. This line did not interfere with the longstanding custom of the Ustaránas to graze their flocks and cattle on the west of the range, which practice was allowed to continue.

The demarcation of the next portion from the Guzai stream southwards was carried out by the officers themselves on the written request of the parties concerned. The line, which was disputed between the Ustaránas and the Músa Khéls and Isots, was held to run along the continuation of the Sanjar range south to near Chitr Vatta except that the Násir Wála Kach to the west of Chitr Vatta was included in the Punjab side of the border. The next portion of the boundary, from Chitr Vatta for about six miles southwards, was laid down in 1895 by Mr. M. L. Dames, C.S., Commissioner of the Déraját, and Captain Archer, and the line was drawn along the watershed between the Dab and Zám *nullahs* till it joined the boundary proposed by Major McIvor, Lieutenant McMahon and Mr. Younghusband in 1891. The latter which extended southwards as far as Mat on the Rakhni river was also finally laid down in 1895, when the Government of India approved of the proposals of 1891 and decided that the Andarpur valley, as to the ownership of which the Punjab and Baluchistán authorities had been unable to come to a decision, should be included in Baluchistán. According to this, the boundary runs from a point about six miles south of the Vihowa river along the ridge between the aforesaid Dab and Zám *nullahs* a few miles north of their source, and follows that ridge in a southerly direction down to the limits of the Karkána lands. It then turns to the east for a little over a mile, skirting the northern boundary of Karkána until it reaches a ridge of hills separating

Karkána on the west from Bája and Phogla on the east. The boundary line then runs south along this ridge, keeping on the watershed of the *nullah* running through Karkána until it reaches the Drug river. The line then turns to the west and follows the course of the Drug river up to the Drug *ghat* or narrow defile in the river near the junction of the Gargoji and Drug streams. From this point the boundary turns south and runs along the ridge which forms the eastern watershed of the Gargoji stream for about five miles; it then turns due west and runs along the watershed between the Gargoji *nullah* on the north and the Kánra *nullah* on the south until it reaches the main spur of the Jhandi hill, which forms the eastern watershed of the Zárni *nullah*; from thence it runs due south along the same main spur until the Jhandi peak is reached; thence it turns almost due west along the watershed between the Zárni *nullah* and the affluents of the Lúni river until it reaches the Joutir peak whence it turns almost due south along a spur to the Lúni river, which it strikes about half a mile above its junction with the Andarpur *nullah*. The line then turns in a south-easterly direction along a spur of the Mári mountain which there forms the watershed between the affluents of the Andarpur *nullah* and those of the Lúni river. When the main ridge of the Mári mountain is reached, the boundary line runs along the crest of the main ridge in a south-south-westerly direction over the Mári and Hinglún peaks and along the crest of the Sáleh Wála range (marked Kálapahár on map*) keeping along the watershed between the affluents of the Andarpur and Sarín *nullahs* and of the Rakhni stream on the west and those of the Sanghar river on the east. On reaching the Khajja pass the boundary turns to the east along the Walbél and Drighi *shams*, which form the southern watershed of the Pathánbél valley, until it reaches the ridge of hills to the west of the Manjbél valley; it keeps along

* N.-W. Trans-Frontier Series (second edition), Sheet No. 460, published August, 1899.

this ridge in a south-south-westerly direction for about three or four miles to the southern watershed of the Manjbél valley which it follows to the ridge running along the east of that valley; it then runs north-north-east along that ridge and the Loladhér *sham*, after which it turns to the east and runs along the northern watershed of the Rakhni stream until it reaches the watershed of the tributaries of the Widor stream; it then turns south and keeps along the watershed between the tributaries of the Widor and Rakhni streams for some few miles, crossing a dip in the crest line named Kharra to a peak on the south of that dip called Miáni Sir. A boundary pillar has been erected on Miáni Sir and another on the conspicuous knoll on the north side of the Kharra dip to better indicate the direction of the boundary at that point. From Miáni Sir the boundary leaves the actual watershed, and runs along the crest of a well-defined spur, which has also been marked out by boundary pillars, to a prominent knoll within a short distance of the foot of the hill opposite the village of Muhma. From this point the boundary line runs along a series of the more prominent of the lower knolls of the range to a low peak south of Bewatta, leaving the various small plots of cultivable land or *thals* known under the collective name of Bati on the east of the line. The post of Bewatta and the pool of water behind it were left on the Punjab side of this line. From the last-mentioned peak the line continues to run along the lower knolls at a short distance from and above the foot of the hills to Sanri, a point where the Rakhni river enters a gorge at the foot of Mount Pikal. Between Bewatta and the plateau shown as Niláni Chur on the map are a number of *thals* situated in two lines running north and south and separated by a low ridge of hills. The upper or eastern line, including the *thals* known as Padri, Jowáni Wáli, and others, were left on the Punjab side of the boundary line which here follows the crest of the ridge above referred to lying between the two lines of *thals*. The lower line of *thals* which includes

the *thals* named Chik, Buriwála, Beriwáli, and Nílri (the two latter are called Kunari by the Baloch) were included in the District. Between Nilání Chur and Chacha the boundary line approaches in many places to a few hundred yards of the Rakhni stream. Between Chacha and Mat the line is often at a considerable distance from the river, and certain defined approaches to the water have been marked out by which the Durkánis are allowed to take their cattle to the water. At Sanri the line of contact between the tribes under the respective jurisdictions of the Déra Gházi Khán and the Loralai Districts ends.

PHYSICAL ASPECTS

The portion of the line which constitutes the boundary between the Khétráns and the Buzdárs was finally laid down early in 1905 and permanent masonry pillars were erected to clearly define it.

Southern boundary.

The southern boundary of the District which commences from near Mat runs westwards through the Pikal range, crosses the Jhabbar stream, and runs approximately along the Andari range, a continuation south-westwards of the Sukha range. The line then crossing the Makhmár stream passes north-westwards through the Kálabhúa plain and crossing the stream of the same name enters the mass of hills known as Bor. It then turns north-east and runs along the Már and Jandrán ranges of mountains to the Han rift near the head of the Báladháka valley and at the easternmost corner of the Kohlu valley. From this point the boundary again takes a westerly course north of the plateau of Kohlu, and running along the hills bordering on the north of the Giasani and Narhan valleys continues in the same direction along the series of ranges of which the highest peak is Butur. From this peak the boundary runs north to Gumbaz, and thence west to the south of Chotiáli after which it runs southwards and, crossing the Béji river near Kup, continues west along the hills south of the Karáhi plain. Thence continuing viá Pazha and the Sémbhar and Kanoki passes the boundary runs along the southern base

PHYSICAL ASPECTS.

of the Siálu mountains, and crossing Fakír Narai near Wańkha runs along the Ghazhgi-ghar range. The southern boundary of the District may be said to end at this point.

Western boundary.

The western boundary of the District commences at a point near the Ghazhgi-ghar peak and runs in a north-westerly direction north of the Pán mountains, Sinjli Kán and Tor Kán and south and west of the Maréti plain over the Ushghára watershed near the Dilkúna pass; thence viâ the Zana Kotal it runs along the high hills of the Nishpa mountains. After leaving these hills, the boundary turns north to Ziarat Tsarai including Chautér within the District and continues in the same direction as far as the Ghunz watershed after which crossing the Malik Salár hills it makes a sharp turn north-westwards and runs along the hills south-west of the Chinjan valley and including the Ubashtki village within the line, till it reaches Tsari Momanrgai and eventually joins the Súrghund mountains.

Northern boundary.

The northern boundary of the District, which commences from near the Súrghund mountains, follows an easterly direction, and passing the watershed of the Churmighar takes a southerly course about seven miles before it reaches Sori. From the latter place it runs in a north-easterly direction for about 20 miles to the Machlaman river, the distance form Súrghund to Machlaman being about 129 miles. Hence the line of boundary runs roughly with the western slopes of the Súr range in a northerly direction in almost a straight line to the Razana river, leaving the Ali Ahmad, Ali Khán Kili, Landián and Kashmír villages to its west. From the Razana river the line continues eastwards through the Satiára range, and follows the line of the Lawara watershed to Bágha.* Hence the line takes a northerly direction along the western slopes of the Torghar range of the Sulaimán mountains till it reaches the Chúhar Khél Dahána. From Machlaman to Chúhar Khél Dahána the distance is about 64 miles.

* Locally known as Tap.

PHYSICAL ASPECTS

The District consists of a series of long but narrow valleys hemmed in by rugged mountains.

Configuration.

In the north lies the Bori valley, which runs east and west and is bounded on the north by the Dámánghar range and other ridges and on the south by the Kru mountain and its continuation westwards to Murdárghar. The valley is roughly eighty miles long by eight broad, but is split into two portions by a low range of white limestone and shale hills running down it. . In the hills north of the valley, the peculiar formation of all the ranges about the country is very noticeable. The ridges are parallel, the uniform run of the lines of upheaval being from north-east to south-west. For the most part the slopes are gradual from the foot upward, and then assume a precipitous steepness near the summit, giving them the appearance of a fort situated on a glacis or skirt. These skirts are composed of the débris of the mountains and extend a considerable distance, eventually merging into the plain. These parallel ridges lie at wide intervals with this glacis formation between them. The openings between these give wide passages between Bori and Zhob, and offer roadways with easy gradients.—(N.-W. F. Gazetteer).

In the north-east is situated the large valley of the Sahra the general lie of which is from south-west to north-east. The valley is bounded on the north by the Lwára watershed and the Sappar or Tsapar range of mountains; on the east lies the Torghar range of mountains the continuation of the great Sulaimán range southwards, of which the prominent peaks are Salai, Narai, Buj and Hazárghat. To the south lies a mass of mountains of which the principal is the Trakar range, while on the west is the Súr range of mountains.

In the south-east of the District, the Bárkhán valley is enclosed on the north by scattered low hills which divide the drainage of the valley from that flowing into the Rakhni stream; on the south-east by the Sukha range; on the south

PHYSICAL ASPECTS.

by the Andári range, a continuation of the Sukha range south-westwards; and on the west and north-west by the great Jandrán range. The valley opens out south-west into the Vitákri valley, the latter being really a prolongation of the former. To the east of the Sukha range is the Karcha valley which is bounded on the east by the Phulali range.

The rest of the country forming the south-western and partly the central portion of the District consists of a series of plains most of which lie between parallel ranges of minor hills. The most important of these plains is that known as the Thal Chotiáli, the physical geography of which differs in no way from that of the other parts of Southern Afghánistán; when viewed from the neighbouring hills it has the appearance of an inland sea so level and flat is it. It consists of a rich alluvial deposit and is bounded on the north by a series of precipitous, but not very lofty, hills which extend from the Siálu range to the Chamálang valley. On the south, from the lofty Mazari hill in the south-western corner of the plain to the Butur hills on the east, extends a more or less continuous mountain barrier known generally as the Pazha hills. A spur called the Dabar hill projects into the plain in an easterly direction from the Siálu range for about sixteen miles. An account of this spur is given further on in this section.

Hill ranges.

The hill ranges of the District consist of rugged mountains which vary in elevation from 3,000 to 10,000 feet. Those occupying the west and centre have a direction from west to east, and form the upper catchment area of the Anambár river. Those in the east run north and south, and their drainage bursts through the Sulaimán range into the Indus valley. The western ranges are the highest. The central hills consist of three parallel ranges stretching out to meet the Sulaimán range. They are known locally as the Dámánghar on the north; the Kru and Gadabar

hills in the centre, and the Dabar range with its eastern continuation on the south.

PHYSICAL ASPECT

Sulaimán range.

The main range stretching through the District on the east in one continuous chain of mountain peaks, from the Gomal river on the north to the Indus on the south, is the great Sulaimán* range.

Subsidiary ranges. Torghar.

The Lwára plain and the Sahra valley divide two ranges of mountains running east and west of them which form the prolongation of the Sulaimán range southwards and are known by the general name of Torghar and Súrghar ranges. The eastern chain of mountains running from Chúhar Khél Dahána on the north to the Lúni river on the south is known as the Torghar range. The northern portion as far as the Guzai river is commonly known as Nishtarghar of which the highest point, Mizri Roh, has an altitude of 10,200 feet. It overlooks the plains on the east and the Indus is clearly visible on a fine day. The drainage on the western side falls partly into the Chúhar Khél Dahána and partly through the Tap valley into the Vihowa. The drainage on the east is carried by the Ramak and Guzai streams. The base of the mountain is thickly covered with acacia and wild olive trees, while pine is abundant on the top. South of the Guzai stream the chain runs in parallel ridges as far as the Toi river under the names of Torghar, Shínghar and Toghásh. From the Toi southwards, the chains of hills separate, that running in a westerly direction and forming the eastern boundary of the Sahra valley, as far as the Sadawal stream, is called Salai, and that stretching in the east to the end of the Kharspún valley is named Narai. In the Salai range are several plateaux of unirrigated lands owned by the Bél Khél Músa Khéls, where grapes, apricots, pomegranates and wild figs grow in fair quantities. Dwarf palm is abundant. The north-western drainage is carried into the Toi while the south-eastern flows into the Rod river.

* NOTE.—A detailed description of this range is given in the *Zhob District Gazetteer*, page 6.

...SICAL ...PECTS.

...par or ...pat.

Sappar or Tsapar, an offshoot of the Torghar range, lies north of Toi Sar and is grazed over by the Isots and Marghazáns.

The Tirh range of hills (7,640 feet) lies north-east of Narai between Kaiwahan village on the north and Sunman plain on the south. The hills are very steep, large rocks and stones making them impracticable for any but hillmen.

Three difficult footpaths go from the Sahra valley viâ Toi Sar to the Zamari country through these ranges; one runs through the hills to the Tap valley and there divides one branch known as Shpalyára *liár* going over the hills beyond the Kot Ashak Khán village, and the other following the Tap Tangi. The third follows the bed of the Toi river to Palasín village, and then turning northward meets the other two tracks at Kot Ashak Khán. These eventually lead to the Déra Ismáíl Khán District.

The caravan route from Músa Khél to the Déra Ismáíl Khán District enters the range of hills to the east of the Sahra valley, and crossing a plateau called Sahbai over the Narai hills goes north-east in the bed of the Karhér river. It then turns southwards and running through the Lowarki pass goes to Chitr Vatta viâ the Burkohi river and thence to Vihowa.

Another caravan route from Zhob comes viâ Toi Sar, Lahar, and Péki to Zakozai and crossing the Urmazh pass joins this route in Sahbai plateau.

...d.

A westerly ridge of the Sulaimán range situated between the Lúni and Vihowa rivers, and overlooking the Drug valley to the east and the Músa Khél country to the west. The prominent peaks are in the north Buj (7,620 feet); in the south Hazárghat (8,054 feet), Behu (7,970 feet) on which stands the shrine of a saint, to the east of Hazárghat, Joutir (7,087 feet) and Jhandi (7,046 feet). The southern peak Hazárghat or "a thousand precipices" is so named on account of the extreme steepness of its slopes. The eastern drainage of the whole range passess through the Lang river into the Déra Ghází Khán District, while the western drainage of

the northern portion of the range is carried by the Kharspún river through the Burkohi Tangi into the Vihowa, that of the southern portion flowing into the Lúni river. The range is inhabited by Bulfarz on the west and Jáfars on the east. The northern slopes below the Hazárghat peak to Khán Muhammad Kot are inhabited by Bél Khél Músa Khels. PHYSICAL ASPECTS.

The principal route through this range goes from Músa Khel to the Drug valley. It is called the Buj *liár*, and crosses the Buj peak, which is difficult both for footmen and beasts of burden. A difficult route leads from Khán Muhammad Kot to Drug by the Warzhiz *nullah* between the Hazárghat and Behu hills, thence over the Sarai Kotal and further northwards over the Singh Kotal and viâ Nath village to Drug.

The vegetation of these hills consists of olive, *acacia modesta*, *gargol*, *maurai*, wild figs and *hélanai*. Grass is also found in abundance.

Súrghar range.

A continuation of the southern hills of the Sulaimán range stretching from the north of the Lwára plain in Zhob to Mékhtar in the Bori tahsíl, and separating the Músa Khél tahsíl from that of Fort Sandeman. The north-western slopes of the range lie in the Zhob District and are locally known as Torghar; the eastern slopes which are in the Músa Khél tahsíl are given the general name of Súrghar. The highest peak Charkundai is 7,598 feet. The eastern drainage is carried by the Razana, and Tang Lahar rivers, which eventually drain into the Vihowa. The range is inhabited by the Músa Khéls.

The principal paths running through the range westwards are (*a*) from Sahra Músa Khél to the Gosa plain in Zhob, and (*b*) another to Murgha Kibzai.

The vegetation consists chiefly of *acacia modesta* and olive in some quantities. The Box tree grows in the north-eastern portion of the range, the only place in Baluchistán where it occurs. Grass is also abundant in the hills.

HYSICAL ASPECTS.

kal range.

An offshoot of the Súrghar range on the south-east stretching from the Tang Lahar river on the north to the Tarikh stream on the south. Its highest peak is 5,928 feet. It borders the Viásta valley on the west, while the Bala'ghar mountains, of which the highest peak is 7,018 feet, stretch to the east of the valley. The drainage is carried by the Lori Tang which eventually merges into the Lúni river. To the south-east of the range is situated a wide plain called the Kakal Dámán, where grass grows abundantly and to which the Músa Khéls in summer, and the Kibzai and Ghilzai Powindahs in winter, resort for grazing purposes. *Pistacia cabulica* and olive grow in the Kakal range in large quantities.

Of the other mountain ranges extending southwards to the Marri country and forming the prolongation of the great Sulaimán range, the undermentioned are the principal ones. Dadar is a conspicuous mountain in the Lúni country between the Chamálang and Láki valleys. Another detached hill range called Nath (6,070 feet), lies to the north-east of it. Dadar is an isolated mass of mountains 6,657 feet high, surrounded on all sides by richly clad well-wooded plains or valleys.

rwada.

To the south-east of Dadar and to the west of the Karhér valley runs another range in a series of detached hills and known as the Karwada range after a pass of the same name. The highest peak in the south-eastern portion of the range is 6,061 feet. At the south-east foot of Dadar and in the neighbouring Kach Budi and Kharlak hills seams of coal have been noticed.

g.

South-east of Karwada is Díg (6,107 feet), a range of hills running north-east and south-west and enclosing the Bagha valley on the east.

kha.

Dékha (5,197 ft.) is one of the highest hills in the Khétrán country lying at the northern extremity of the long range enclosing the northern portion of the Bárkhán valley on the east. It lies about six miles to the north-west of Rakhni

and is separated from other parts of the same range by two passes through which run routes from the Bárkhán valley to Rakhni ; the pass to the north of Dékha is called the Chhuri, and that to the south the Baddhi. The drainage through both these passes flows into the Rakhni stream. The ascent of the Dékha hill is difficult and a few Khétráns only resort to it for grazing their cattle. A good view of the Khétrán valley can be obtained from the summit on a clear day.

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Sukha Daula.

The Sukha Daula range forms the continuation of the Dékha range south-westwards and encloses the lower part of the Bárkhán and the upper end of the Vitákri valleys on the south. In the north-east of the range is the high peak of Mazára (5,980 feet). A pass called the Gozwanga traverses the southern end of this range and affords a route between Mat and Náhar Kot. This pass is marked by a distinct gap in the range and has three ascents all very steep and rough.

Andári.

In continuation of the Sukha Daula range south-westwards is another long range of mountains enclosing the Makhmár and Vitákri valleys on the south. The western extremity of the range rises to a considerable height and is known by the name of Chappar. A route branching off from the Makhmár valley skirts the western extremity of this range, and joins the Káha *nullah* in the Marri country.

Phulali.

A range of hills (5,561 feet) running south-west of the Rakhni valley from the Baddhi stream on the north to the Gujhi *nullah* in the south-west. The range stretches throughout along the west of the Rakhni river. The drainage both from the east and west flows into the Rakhni river which eventually makes its way into the Marri country. The mountain is only accessible to footmen who resort to it for grazing purposes.

Pikal.

To the south-west of Phulali lies the Pikal range between the south-west corner of the Mat Chacha valley and the north-eastern portion of the Nesáu plain. It encloses

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the southern side of a pass of the same name which affords a route through this range from the Mat valley to Náhar Kot. It is, however, passable only by donkeys and hill bullocks. The highest point of the range is 3,938 feet.

Jandrán.

The Jandrán range of hills (highest point 6,718 feet) runs north-east and south-west and separates the Kohlu plateau from the Khétrán country. Only the south-eastern slopes lie in the District. Its slopes are rocky throughout, in many places containing excellent pasturage, on which the Khétrán, and more especially the Hasni, shepherds graze their flocks. The actual range known by the above name may be said to terminate eastwards at the Bibar Tak pass, by which a camel track leads from Kohlu to Bárkhán, and westwards at the Már pass, by which a route also practicable for camels goes to Kahán and Mámand. It can also be crossed by the Daula Wanga and Luniál passes. The range, however, is prolonged in both directions beyond the Bibar Tak and Már passes, the hills to the east gradually diminishing as they approach Bagha, while to the west the range is prolonged by a long steep wall of rock which terminates at the Sund Thal in the Marri country. This part of the range is impassable except at the Nariál and Mézhlare passes: the former pass is only practicable for very lightly laden camels and the latter, as its name signifies, is only a sheep track. The chief vegetation of the hills, besides grasses, is the dwarf palm which grows luxuriantly. They are also believed to produce certain herbs which are highly valued for medicinal purposes. On the Jandrán mountain, there is the shrine of a saint Sháh Mahmúd who is said to have come from Baháwalpur and lived in the hills. The shrine is held in great reverence.

Kasa or Kasa r.

In the west of the District the Kasa range runs south of the Ghunz village for some miles and is the highest part of the hills dividing the two roads which lead east from Kowás, towards Smállan by Ziárat, and by Ghunz Narai. The highest peak is 11,103 feet. It contains much juniper.

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Ghund, Gazghai and other peaks

Ghund is a high peak in the range north of the Tánda Salám valley. It has an elevation of 9,383 feet. Its western extension is known as the Malik Sálár (10,652 feet). To the south-east stretches a range called Khorán of which the highest peak is 8,633 feet. To the east of the latter runs another range known as Gazghai. The Gojur (8,642 feet) lies between the Tánda Salám and Wuch Salám valleys and extends eastwards to the Smállan valley.

Murdárghar.

A range of hills lying north of Sanjáwi and separating it from the Bori valley. The highest peak is 7,732 feet. Immediately south of the range is the valley known as the Lwára Dág, along which and the narrow valley of the Inzarghat to its west runs the main road from Harnai to Loralai. The Lwára Dág valley is flanked on both sides by somewhat precipitous hills which are, however, well covered with grass after good winter rains.

Siálu.

A high range of mountains forming the south-western boundary of the Thal plain. The south-eastern slopes only of the range lie in the District. Its highest peak is 8,112 feet. Its vegetation consists chiefly of acacia and olive. Fig trees and pomegranates are to be found here and there.

The principal footpath leading through the range is known as Pur Tak which goes viâ Pur to Spíntangi in the Sibi District. On the south-west border of the Thal Chotiáli plateau, the range is crossed by the Sémbhar pass through which goes the road from Duki to Spíntangi. The Pazha hills (2.500' feet) extend from the east of the Sémbhar pass to the Butur hills, and form the southern boundary of the Thal plain. Roads over these hills lead to Quat Mandái and Bábar Kach in the Sibi District.

Dabar or Dabbar.

A range on the north-west corner of the Thal Chotiáli plain projecting in an easterly direction from the Siálu range, for about sixteen miles. It is a most remarkably rounded, tortoise-shaped mass of hills, seamed from top to base with ravines and cracks and apparently covers an extensive system of springs, *kárézes* having been excavated from all sides of

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its base. It diverts the course of the Thal river and from near its eastern end, a low range extends to the mass of the hills forming the northern boundary of Thal. The vegetation consists principally of acacia and olive.

[The Súrghund hills.] A succession of parallel ridges consisting of the offshoots of the Súrghund mountain (Zhob) and roughly forming a portion of the northern boundary of the District. These detached ranges of hills stretch westwards from the Churmai Tangi north of the Dámánghar range till they merge into the main mountain at the westernmost extremity of the District. The ranges are given distinctive local names. Of these Siázgai, an isolated hill between Chinjan and Dirgi Sargara presents an unusually striking appearance. The southern drainage of these hills is carried by the Loralai and Kohár streams to the Anambár river. Of the principal paths from Zhob leading through these ranges are (1) Hindubágh to Chinjan viâ Marzaghán and Tortangi, (2) to Spérarágha viâ the Khátuka river, (3) Kila Saifulla to Loralai viâ Nishpa and Kohár Tangi, and (4) Gwál Haidarzai to Loralai viâ Barat Khél, Gidar Cháh and Torkhézi Tangi.

[Dámánghar.] One of the parallel ranges running east and west through the hill region which forms the boundary and watershed between Bori and Zhob. It abuts into the Bori valley towards the west near Zhar Káréz. Here it sinks into a mere elevated plateau only a few hundred feet above the valley. The hills are chiefly composed of limestone; in a few places sandstone and conglomerate appear. The highest peak is 6,600 feet. Looking northward from Bori, this range presents a very striking appearance with its scarped crest resting on a steep glacis of débris which gradually melts into the alluvial plain, and seems like a natural rampart barring all passages to the north. The aspect of the whole range is uninviting in the extreme. Snow is said to remain on the hills only for a few days in winter. It is inhabited by Marma Khél Arabi Khél Kákars. Two important routes from Loralai to Zhob go through this range viâ the Mara

Tangi and the Torkhé ziTangi. The latter is about one mile long and 100 yards wide. PHYSICAL ASPECTS

Churmaghar. To the north-west of the Dámánghar is the Churmaghar range (6,941 feet) which separates Bori on the south from the Kila Saifulla tahsíl in the north. To the west of the range a route runs viâ the Churmai *tangi* from Loralai to Akhtarzai in Zhob. The pass is easy for camels throughout.

Kru. In the centre of the District a remarkable looking mountain called Kru (6,261 feet) stands out prominently south of the Bori valley. To the south of Kru and connected with it by a fairly high saddle are other high hills, the highest point of which is Bagrai. The slopes of the Kru mountain from the base upwards are gradual at first. At the summit it becomes quite precipitous and assumes a fort-like appearance of enormous strength. On the top is a basin-like formation somewhat rectangular which makes it an impregnable natural fortress. Several villages of Hamzazais are situated at the northern base in Bori and of Lúnis at the southern base.

The Anambár flows round the north-east and south bases of the mountain and carries the entire drainage. Several small water-courses run down all four sides of it.

The principal route over these hills goes from Wahár to the Lúni country and is known as Urmazh *liár*.

Gadabár. To the east of Kru the Gadabár range (6,629 feet) forms part of the southern boundary of the Bori valley, and divides the Hamzazais on the north from the Lúnis on the south. Its entire drainage flows into the Anambár. The slopes are precipitous in places. A camel track leads through a gap called Wat in this range to the Lúni country. Another route goes over the range and is known as Zhwe *liár*. The principal tree is *acacia modesta*.

Tumbél. A range of mountains north-east of the Káréz village in the Lúni country. The highest peak Tumbél is 5,739 feet. The northern drainage is carried by the Láki stream and the southern by the Naréchi both of which flow into the Anambár or Béji river.

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Torghar.

East of the Maréti plain and south of the Smállan valley runs a high range of hills extending as far as Bagháo and known as Torghar. Its highest peak is 7,594 feet. Grass grows on it in great quantities. Warkanghar stretches south of the Kharáshang plain eastwards to the Robát plain.

Rivers.

As has been already said, the drainage of the western and central portion of the District is carried off by the Anambár and its affluents, while the eastern drainage bursts through the Sulaimán range into the Indus valley.

Anambár.

The Anambár is the principal river of the District. It rises at Tsari Momanrgai in longitude 67°46′ at the watershed between the Sháhrig and the Bori tahsíls four miles to the east of Spéarrágha. Here it is a hill torrent and has no perennial supply of water. It flows in an easterly direction for about 32 miles up to its junction with the Dargai hill torrent, then turns south-east and about 48 miles below the junction it is joined by the Mara river from the north. This river rises in the hills between the Bori and the Zhob valleys, crosses the Dámánghar range, and emerging through the Mara Tangi joins the Loralai river near Nawe Oho. At about two and a half miles further east the Loralai is joined by the Sehán and Watagán rivers from the north-east. Both these latter rivers have permanent water. Up to here the river is known as the Loralai or Lorali, but after its junction with the Sehán it becomes the Anambár. The river then takes an abrupt turn to the south, and passes through the Záti Tangi, a gorge between the Kru and Gadabár ranges. Flowing through the Lúni country, it is joined from the north-east by the Láki stream, and further south by the Naréchi which has perennial water. A little below its junction with the Naréchi river and about four miles from Chotiáli, the river is crossed at Ghátipul by a masonry bridge and is thereafter known as the Béji. It then enters the Marri country retaining the name of Béji, is joined near Bábar Kach by the Dáda and Sángán streams from the north-west and through the Nári gorge debouches into the Sibi

plain and is known as the Nári. The bed of the river for the greater part of its length is covered with shingle, but from the Záti Tangi to Ghátipul it passes through soft soil and is unsafe to cross except at the regular fords. The water of the river is raised by means of temporary embankments to cultivate lands in eighteen villages in the Lúni and Láki circles of the Duki tahsíl of the District. Tamarisk, rushes and tall reeds grow in many places along the bed and banks of the river and *sufédár* (poplar) is also found in that part of the river which lies in the Lúni country. PHYSICAL ASPECT.

The following are the principal affluents of the Anambár :—

Kohár or Babai.

The Kohár or Babai stream rises in the Kohár hills north-west of the Dámán range. Flowing in a southerly direction it encloses on the west the wide stony valley of Bergannu. It then runs east and is joined from the north by one of the branches of the Torkhézi. The united streams carry the drainage of the southern slopes of the Dámán range, and join the Loralai river at Kachhi Wahár. The river is known as Babai from near the Bori village, at which place it becomes perennial. It irrigates several villages in the Wahár circle. The bed of the river is stony.

Siáb.

The Siáb rises in the north-eastern hills of the Dámán range and flowing south is joined by the Torkhézi stream which brings the drainage of the south-eastern slopes of the same range. At the point of junction, the stream becomes perennial and irrigates some of the villages in the Wahár circle, joining the Loralai river at a distance of about three miles from Wahár rest-house. Its bed is shingly with low banks.

Sehán.

The Sehán rises in the hills north-east of Murgha Kibzai in the Zhob District. In its course southwards it receives the drainage of the south-western slopes of the Súr range and turning westwards is joined by the Nigán stream from the north near Kotkai, and further west by the Watagán. The united streams then flow in a southerly direction joining the Loralai river at Mullá Mián Khán Kach, just north of

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the Záti Tangi. The Seháu becomes perennial on entering the Bori valley and irrigates several villages in the Mékhtar circle. The banks of the stream are low and the bed shingly. Tamarisk grows in some quantities.

Láki.

The Láki or Lákhi stream rises in the Lákhi Sham north-west of the Chamálang valley. With its numerous affluents it drains the wide valley lying between the Gadabár and Pinkai hills on the north, and the Dadar and Tumbél hills on the south. It is joined by two smaller streams from the north, the Shpélu and the Darélún. It affords irrigation in several villages in the Láki circle, and flowing in a south-westerly direction meets the Anambár close to the village of Sadozai.

Naréchi.

The Naréchi rises in the Véra Sham watershed north-east of the Chamálang valley, and in its upper course is known as the Chamálang. It leaves the Chamálang valley through the Lúni Tangi and flowing south-westwards joins the Anambár near Chotiáli, where its banks are some 24 feet high, and from 24 to 30 feet wide. Near Palos village a few miles below Lúni Tangi the flow becomes perennial and the river is known as the Zinda Rod. In spite of its high banks it is liable to flood, when it inundates the surrounding country to a considerable extent. It is impassable after heavy rains, owing to its muddy bed except at regular fords. The banks of the streams about Chotiáli are well wooded with tamarisk and *sufédár* (*Populus alba*). Grass is also abundant.

Báladháka.

The Báladháka is a tributary of the Naréchi. Its head-waters come down from the south-western slopes of the Níli Lakri watershed north of the Han pass. After running westwards for about 20 miles during which it runs through the Shpélu Tangi it takes a sharp turn to the north near Paliáni round the west end of the Makh hill, before joining the Naréchi. There are several deep pools of water in the *tangi*, which is a narrow rift, some 300 yards long between high precipitous rocks.

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Thal.

The Wani hill torrent rises in the Ziárat Tsari or watershed, and running eastward passes through the Chautér and Wani valleys. Taking the water of its different affluents, it flows through various defiles to Bagháo, whence it has a general southerly course through Duki into the Thal plain and is called Thal Rod. Perennial water appears at Thadri near Duki. After passing the east end of the Dabar hills, the stream irrigates the Shádozai villages in the Thal plain. During floods its water sometimes finds its way into the Béji river. Among its principal affluents are—(1) the Mazhai which rises in the hills south of Ghunz, and runs eastwards and in its upper course is known as the Grangah. Passing through the Shírín and Pui villages it joins the Wani at Righora. Another large stream rising in the Ghunz watershed runs parallel to and north of the Mazhai, and taking the drainage of the north-western hills of the Sanjáwi tahsíl eastwards, joins the Wani near that tahsíl; (2) the Maréti which rises in the Ushghára Kotal and running through the Maréti plain joins the Wani near the Uzhléz village.

Toi.

The Toi is formed by the junction of the Razana and the Tang or Lahar rivers flowing from the north and south respectively. Both of these rivers take their sources in the Súrghar range to the west of the Sahra valley, the Razana rising in the northern watershed of the range near Atal Kach, and the Tang or Lahar to the north-east of Kibzai Sahra. The latter takes the drainage of the lower slopes of the Súrghar range and runs eastwards through the Tangi Sar after which it takes a northerly course and running through the Músa Khél Sahra valley under the name of the Lahar joins the Razana at Toi Sar. The Lahar is only perennial as far as Músa Khél, where the water is utilised by the inhabitants. From Toi Sar, the point of junction, the united stream is termed the Toi and runs in a perennial stream irrigating lands in the Toi, Palásín, and Ghat villages. From Toi Sar the quantity of water gradually

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increases. The river after passing through the Gat Tangi is joined by the Karhér from the south, which irrigates the Nishpa, Kohi and Kaiwahán village lands. At the border of the District at Chitr Vatta it is joined by the Burkohi from the south, a perennial stream irrigating the Tangi, Bulfarz, Burkohi and Sra Dargha village lands. The combined rivers then flow into the Déra Ismáíl Khán District under the name of the Vihowa. During the rains, the river is impassable at Chitr Vatta, where caravans to and from the Déra Ismáíl Khán District are detained for days together. In the bed of the streams from Toi Sar to Gat Tangi pools of water are to be found, full of fish some of considerable size. There is a spring of hot water near the Palásín village. The bed of the river is stony and full of boulders.

Lang.

The Lang stream rises in the Thak Sham pass between the Behu and Hazárghat mountains and runs north. At Sing water appears and affords irrigation in the Gabar and Nath villages. Near Gabar another small stream, Khaji, joins it from the west after which the stream is known as the Lang. After passing the village of Nath, the water disappears. Running southwards the Lang is joined by the Zárni or Gargoji stream in the Drah pass and water again appears in it. The Zárni irrigates the Gargoji, Zárni and Kiára village lands. The united streams irrigate the Níli lands, and running in a south-easterly direction in the Déra Gházi Khán District flow into the Sanghar river. Below the village of Nath the bed of the streams widens out and tamarisk and acacia grow abundantly in it.

Lúni.

This name is given to the combined waters of the various streams draining the Músa Khél country, the principal of which are the Rod from the north, the Lori Tang from the west and the Kingri and Sarín from the south. After passing Khán Muhammad Kot, the volume of water considerably increases and the united stream runs into the Buzdár country under the name of the Lúni, flowing eventually into the Sanghar river in the Déra Gházi Khán District.

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The Rod brings southwards the drainage of the eastern and western slopes of the Salai and Narai range respectively, and drains a valley in the Músa Khél country north of Khán Muhammad Kot. It joins the Lori Tang close to the latter place, and after running south-eastwards for a short distance merges into the Lúni. The stream becomes perennial at the point where it is joined by the Ghbarg hill torrent and contains a large supply of water. Thence southwards it irrigates lands on its banks especially those in the Rod village. Dwarf palm, grows abundantly along its banks.

The Lori Tang is a combination of the various streams and hill torrents coming from the south-west of the Músa Khél country, the principal of which are the Tríkhkár, Dab, Síni and Nokoi. From the point of junction of the three former streams the river takes the name of Lori Tang. After running east for a short distance it is joined by the Khajúri from the south when it takes a wide sweep to the north and joins the Rod about three miles north-west of Khán Muhammad Kot. The Kingri stream rises in the Karwada watershed north-east of the Chamálang valley. It runs in a north-easterly direction and joins the Lúni near Khán Muhammad Kot. Its water is claimed by the Lúnis, but the Músa Khéls utilise it for purposes of irrigation and recompense the Lúnis by certain shares in the produce. It is a perennial stream and affords considerable irrigation along its banks.

Han or Kárín.

The Han takes its source in the Níli Lakri range which is the watershed between Mithi Khui and Báladháka. It runs generally in a direction south-south-west and carries the drainage of the Han pass and the south-eastern slopes of the Jandrán range. At Dahmáni the stream becomes perennial and thence to its junction with the Káha river in the Déra Ghází Khán District is known as the Kárín. It is joined at Vitákri by the Daula from the north-east. The Daula brings the drainage of the hills to the south of the Bagha valley, and irrigates a number of villages in the

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Bárkhán valley, through which it runs. Lower down the Káhán is joined by the Wáhi stream which brings the drainage of the Sukha range. After leaving Vitákri the river takes a south-easterly turn and runs through the Bugti and Gurcháni country into the Káha river in the Déra Ghází Khán District. About three miles from the mouth of the Han pass, there is a spring of excellent water called Hankui. Its water is carried by means of an artificial water-course, for about two miles through the bed of the Han to the Bárkhán tahsíl headquarters and Háji Kot where it is used for irrigation and drinking.

Rakhni.

The Rakhni river rises in the hills north of Muhma. It has a perennial stream of good water running almost continuously through the length of the Rakhni valley. It runs generally speaking north and south along the eastern boundary of the Bárkhán tahsíl and receives the waters of a number of affluents from the west, of which the principal are the Chang. Churi and Baddhi. Up to its junction with the Chang, which drains the country south of the Rarkan plain, it is called the Wandui. After traversing the Rakhni plain, it flows through the Chacha country south-westwards, and near Mat is joined from the north-west by the Gujhi *nullah* which carries the drainage brought by the Malali and Karcha streams from the Daula hills. After passing Mat, the river runs south-west into the Káha river in the Déra Ghází Khán District. The river irrigates lands in the three villages of Chappar, in Deh, Math Kalwani, Rahmtán Rotar, Nazar Rotar, Dubba, Chacha and Mat villages. The bed of the stream is shingly down to a little below Mat at which place it is very stony and impracticable. It varies in width from 50 to 150 yards and its banks throughout the valley to below Mat are low. The Chhuri rises in the Díg hills to the east of the Bagha valley, and running in a south-easterly direction meets the Rakhni near Rahmtán Rotar. The stream is perennial for the most part and affords irrigation in the Ghanda Kásmáni, Wadu Khán Rotar, and Karu

Chur villages. The Baddhi comes from the hills south of the Tagha or Taghao plain, and joins the Rakhni close to the village of Dubba. About a mile before the stream enters the Rakhni plain, the water disappears below the surface of the bed. Up to this point it has a good flow of water and irrigates three Lanjáni villages situated on its banks. PHYSICAL ASPECTS.

Scenery.

Of the scenery of the District Mr. W. S. Davis, the Political Agent, writes (1905) :—"Compared with the fertile valleys of Quetta and Mastung and the beautiful colours of the hills round Quetta, the greater part of the Loralai District cannot be said to boast much in the way of scenery. A large part of it consists of long stony valleys ranging from 5 to 10 miles broad, and several extensive bare plains surrounded by hills, which at first sight appear to be absolutely devoid of trees and in many cases are as bare and uninteresting as the hills on each side of the Gulf of Suez.

"Probably, however, no tract of country in the world, as extensive as the Loralai District, is devoid of some spots where Providence has not done something to relieve the eyes and to embellish the prospect, and this dreary country has not been altogether forgotten. The fertile little valleys of Smállan and Baghao with their numerous streams of clear water, and clumps of apricot, mulberry and other trees covered with trailing vines dotted about among the corn fields are a rest to the eyes after driving through the 20 miles of the desert and bare rocks from Loralai.

"Going west from Smállan for a distance of about 16 miles the edge of the juniper forest of the Ziárat range is reached, and the 16 miles of road through the shady glades of the forest to the pass 5 miles from Ziárat is probably one of the most beautiful pieces of mountain scenery in Baluchistán. In the Músa Khél hills, close to the Takht-i-Sulaimán, the proximity of high peaks running up from the plains of the Déraját is probably the cause of a more liberal rainfall, and they are well covered with wild olive and

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acacia modesta trees and many of the valleys have good streams of water and are well cultivated.

"The only other part of the District, which can claim to have any attraction, is the valley of the Naréchi river and the country round Hosri, which is periodically flooded by the Sphéli torrent. These places contain many fine trees, mostly the Euphrates poplar, which stand in grass flats and are a pleasing contrast to the bare plain all round.

"Having said so much, the Loralai District may be left to its dreary monotony and to its bracing and invigorating desert air."

Geology.

The following account of the geology of the District has been kindly supplied (1906) by Mr. E. Vredenburg, of the Geological Survey of India:—

"Formations belonging to the upper cretaceous are widely spread throughout this territory, and are diversified by numerous outcrops of the underlying lower cretaceous and jurassic strata in the western and northern part of the District, and of the overlying eocene beds in the eastern and south-eastern portion.

"The eocene and upper cretaceous rocks consist largely of dark-coloured shales interstratified with limestones with nothing to distinguish them from one another except the fossil remains which they contain.

"A considerable mass of sandstones, sometimes with pebble-beds of volcanic origin, especially amongst its uppermost strata, constitutes locally an important upper member of the upper cretaceous, especially along the Punjab frontier in the hill ranges of which Ekhbai is the most conspicuous peak. These massive sandstones are known as the "Pab beds," a name derived from the Pab range in Jhalawán (Kelát State), which consist largely of this formation. The volcanic conglomerates associated with the Pab sandstones correspond with the Deccan Trap of the Indian peninsula.

"The jurassic system includes a massive limestone of enormous thickness (several thousand feet), constituting the

lofty mountains south of Chinjan at the western extremity of the District, the tall ridge north-east of Loralai, and the one north of Samundar Khán. PHYSICAL ASPECTS.

"The jurassic outcrops are surrounded by exposures of the overlying lower cretaceous beds consisting of dark, almost black splintery shales capped by flaggy limestones of white and red hues. The black shales, from the abundance of the peculiar fossils known as belemnites, have been described in geological works as the "belemnite beds."

"The oldest rocks of the District are found in the north-west corner. They are slates of triassic age in the midst of which are great intrusions of gabbro (a heavy rock of granitic appearance), whose age is upper cretaceous. These intrusions represent the core of a volcano of the same age as the volcanic conglomerates that accompany the Pab sandstones. The gabbro is sometimes accompanied by serpentines which may contain valuable lodes of chrome-iron ore.

"The eocene beds belong to the division known in the geological nomenclature of India as the 'Laki series,' which is the coal bearing group in Baluchistán. The coal seams which it contains in this District have not yet been worked.

"The structure of all these rocks is a simple one. They constitute a succession of anticlinal folds disposed in concentric circular arcs whose strike gradually veers from south to south-west and to west when followed from the eastern to the western part of the District."

Detailed geological descriptions of considerable interest will be found in Ball's description of the south-eastern part of the District, and in Oldham's description of the Thal Chotiáli neighbourhood, respectively in Volume VII, part 4, and Volume XXV, part 1, of the *Records of the Geological Survey of India.*

On the whole the District is sparsely clothed with vegetation. The principal trees found in the higher hills are *Juniperus macropoda* and pistachio. Olive grows in the lower hills as also *acacia modesta* which is found all through Botany.

PHYSICAL ASPECTS.

the Músa Khél country down to the Anambár river at the east end of the Bori valley. Along the banks of the Naréchi river and in the Pazha valley, a fringe of *Populus euphratica* is found, with a belt of *Tamarix articulata* on each side forming forests in places. Willow also occurs in the District. Tamarisk, wild caper and dwarf palm are found in the valleys. The edible pine (*Pinus gerardiana*) and *Pinus excelsa* (*nashtar*) grow only in Torghar in Músa Khél. Small wild almond trees (*Prunus eburnea*) are common. Myrtle groves are found in the Smállan valley, and Box on the summit of the Músa Khél hills, the only place in Baluchistán where it has been discovered. Of other trees, those commonly occurring in the District are *ak* (*Calotropis gigantea*), *spédár* (*Populus alba*) and ash or *Fraxinus xanthoxyloides; shisham* (*Dalbergia sissoo*) has been introduced at Duki and grows well. Of the less common species of wild growth to be found are *bér* (*Zizyphus jujuba*), *gargol* (*Reptonia buxifolia*) and *karkanra* (*Zizyphus nummularia*). *Bushka* (*Lepidium draba*), *maréri* (*Portulaca oleracea*) (Indian purslane) and *pamangi* (*Boucerosia Aucheriana*) are used as vegetables. A species of wild garlic, *Allium sphaerocephalum*, is common throughout the District. Other plants of importance are *khamazurae* (*Withania coagulans*), *maraghúnae* (*Citrullus colocynthis*) and *ghalmae* (*Anabasis multiflora*). *Khár* or *zmai* (*Suaeda fruticosa, Forsk.*), from which crude potash is made, is found in Duki and Músa Khél. Cumin seed grows in years in which rainfall is sufficient in the Gadabar, Kru and Ghazghar hills in the Bori tahsíl. It also grows in considerable quantities in Sanjáwi tahsíl.

The wild bushes include *gangu* (*Orthonnopsis intermedia*), *gandérae* (*Nerium odorum*) and *léghúnae* (*Daphne oleoides*), the two last named being poisonous. *Tirkha* (*Artemisia*) is found in the highlands; *mákhae* (*Caragana*) grows in all hills.

Various kinds of grasses grow in the District, the most important being *sába* (*Stipa capillata*) and *sargarae* (*Cymbo-

pogon *iwarancusa*). In many parts of the Thal plain there is a considerable undergrowth of shrub which is suitable for camel grazing; the most common plant being a species of *salsola* (*Salsola sueda*). Of the plants used for medicinal purposes are *isapghol* (*Plantago ovata*), *maurae* (*Zizyphora clinopodioides*), and *shín bútae*, *barara* (*Periploca aphylla*) in the hills, and *plawan* (*Salvadora oleoides*) in Drug. PHYSICAL ASPECTS

Orchards are numerous in Sanjáwi, Duki and Bori and contain vines, apricots, mulberries and pomegranates.

A list of common trees and plants growing in the District is given in Appendix I.

The wild animals of the District are much the same as those found in other highland Districts of the Province. They include the wolf, jackal, hyena and fox, all of which are common throughout the District. The mungoose is also found, especially in the Bárkhán tahsíl. The black bear (*mamh*) occurs in the Jandrán hills and in the Súrghar, Behu, and Hazárghat ranges of the Sulaimán mountains, and occasionally in the Gadabár hills and the Dámán range. In the latter hills and in the Torghar, Behu and Buj ranges, leopards are also sometimes found. The porcupine and badger are common; the hedgehog occurs mostly in the Khétrán country. Wild pig are occasionally met with in the Gadabár and Anambár forests and along the Rod and Toi rivers. Mountain sheep and márkhor are fairly plentiful especially in the higher altitudes of the Sulaimán range and in the hills near Chautér and Wani. Ravine deer occur in the plains. Hare are found everywhere in the hills. Fauna.

Of game birds, the chikor and sisi are numerous in the hills and black and grey partridges, pigeon, sandgrouse, quail and bustard (*Houbara Macqueenii*) are met with in the plains. Waterfowl are plentiful in the season. The commoner birds in the District are the vulture, kite, dove, sparrow, lark, hoopoe (*hudhud*) and starling (*sárak*).

Among reptiles, snakes are numerous in all the tahsíls except Sanjáwi and cause some loss of life. Scorpions are also common.

PHYSICAL ASPECTS.

All larger streams of running water abound in fish. In the Anambár and Toi especially, fish weighing up to 20lb. are caught. Crocodiles are said to occur in deep waters in the Rakhni river, near Chacha and Mat, and in the Kárín near Vitákri.

CLIMATE, TEMPERATURE AND RAINFALL.

The climate of the District varies with the elevation, but on the whole it is dry and healthy. In the west the seasons are well marked; the summer is cool and pleasant, but the winter is intensely cold with hard frosts and falls of snow. In the south and east the temperature is more uniform, but the heat in summer is great. The average temperature at each tahsíl headquarter station is given in the margin.

	Summer.		Winter.	
Músa Khél (1902) ...	85°		43°	
Bárkhán (1902)	... 80° to 94°		58° to 68°	
Sanjáwi (1899)	... ...		25° to 38°	
Loralai (1901)	... 65° to 85°		40° to 60°	
	Morning.	Evening.	Morning.	Evening.
Duki (1905) ...	84·05	104·69	56·96	72·6

Seasons.

The year is divided into four principal seasons known as *psarlae*, spring (March to May); *dobae*, summer (June to August); *manae*, autumn (September to November); and *zhamae* or *zamae*, winter (December to February). They are known in Bárkhán as *chétar* or *wánda*, *unhála*, *sária* and *siála* respectively.

Rainfall.

The District like other parts of Baluchistán lies outside the monsoon area and the rainfall is, therefore, light, the annual average being about 7 inches. The stations at which rainfall is recorded are Duki and Loralai, details of which are given in table I, Volume B. Loralai receives an average of 8·21 inches and Duki of 6·75 inches.

In the western parts both summer and winter rain and also some snow are received. The rest of the District depends chiefly on the summer rainfall which everywhere exceeds that in winter. During the summer months the heaviest rainfall occurs in July and August, while in winter, March is the rainest month.

Winds.

As in other parts of the Province the direction of the winds is affected by the mountainous character of the country

and varies with the seasons. In spring the *purkho* (east) and the *barvo* (south-west) winds generally blow, but the former is the most prevalent in the early part of the season. The Bori valley is subject to high westerly winds which are very cold in early spring and have been known to cause considerable mortality. In summer east winds blow: these bring rain and are highly beneficial to crops. Occasionally the west wind blows in summer and is the precursor of dust storms, mostly in Loralai and Músa Khél. The most prevalent wind in autumn is the western or *barvo*. In winter, west winds frequently blow and are very cold and piercing: if an east wind blows it almost invariably brings rain. The north (*parángai*) and south (*badawo*) winds are not confined to any season, but a north wind generally causes damage to standing crops. In Bárkhán the different winds are known as *purkho* or *utal* (eastern), *chhapar* or *haro* (western), *sarki* (northern) and *dakhan* (southern). CLIMATE, TEMPERATURE AND RAINFALL.

Floods have not been of frequent occurrence in the District. The only flood of any importance is said to have occurred a few years previous to the British occupation of the District when the Thal Rod rose so high that the Simáni fort in the Thal circle was entirely submerged and great loss of cattle and property was caused. The Chhuri hill torrent, one of the affluents of the Rakhni, was in flood in 1893 when several lives are said to have been lost. A similar flood occurred in June 1902. Floods.

About twenty years ago Drug was visited by a storm accompanied by hail which caused much damage to cattle and crops. About 1898 a severe storm visited Bori which lasted for about 24 hours causing loss of life and cattle, and destroying a large number of trees. Storms.

Earthquake shocks have been of frequent occurrence in the District. The first shock spoken of by the people was felt in Bárkhán in about 1852, the same year in which Kahán in the Marri country was visited by a serious earthquake. The damage was confined to buildings. Another more Earthquake

CLIMATE, TEMPERATURE AND RAINFALL.

violent shock was experienced in 1865 when besides destruction of houses, a rift is said to have been caused in a portion of the Jandrán mountains. In about 1890 earthquake shocks were unusually frequent in Sanjáwi, where they are said to have occurred every two or three days for about a month. Several houses in the Smállan valley were destroyed and much damage was done to trees. The latest shock spoken of occurred at Bori in about December 1904, where several houses were destroyed and fissures are said to have been caused in the mountains.

HISTORY.

The earlier history of the portion of Baluchistán embraced within the present Loralai District is involved in obscurity and can only be surmised from what is known of the general history of the Province as given in the Imperial Gazetteer of Baluchistán.

The Timurids.

About 1383 A.D. the Maliks of the Kurat Dynasty, who held sway in Kandahár, succumbed to Amír Timur, and Kandahár together with other tracts constituting the old Ghaznavid kingdom fell into the hands of the latter. These territories were conferred by Timur on his grandson Pír Muhammad, and Kandahár is here mentioned as extending to the frontier of Sind. According to this the Province of Kandahár would presumably have included the Loralai District. During the first half of the fifteenth century, Kandahár remained under Timur's successors and about 1470 came under the authority of Sultán Husain Mirza of Herát, who in about 1480 appointed Amír Shuja-ud-dín Zunnún, the Arghún, governor of North-Eastern Baluchistán.

The Mughals.

At the close of the year 910 H. (1504-5) when Shah Bég Khán had succeeded his father Zunnún, Bábar after acquiring Kabul made a move on India, and on his return viâ the Sakhi Sarwar pass through Baluchistán to Afghánistán halted among other places at Tal Tsotiáli, unquestionably the Thal and Chotiáli of the present day. Another account says that apparently in the same march, Bábar's forces, on his return from India, moved to the banks

of one of the streams* which watered the Duki District, and the next two marches from this place brought the army to the village of Chotiáli. HISTORY.

In 1545 A.D. we read that when Humáyún retired to Kábul after distributing the fiefs dependent on Kandahár, one Mír Sayyid Ali, who was a landholder in Duki, a dependency of the Kandahár Province, and who was esteemed and venerated by the Afgháns of that part and also by the Baloch, presented himself to him. He was graciously received and Duki was conferred upon him.

The Province of Kandahár continued under the Mughals till 1559 A.D. in which year it passed into the hands of the Safavid kings of Persia, under whose sway it remained until 1595 A.D. in which year it was again acquired by the Emperor Akbar. In that Emperor's reign, the territory of Duki which was generally garrisoned, formed an eastern dependency of the Kandahár Province and provided a contingent of 500 horse and 1,000 foot besides other contributions.

Early English travellers.

In the year 1614 A.D. in the reign of Jahángír, the successor of Akbar, Messrs. Richard Steel and John Crowther, two English merchants who were on their way from Ajmér to Isfahán, passed through the District. Travelling from Multán they crossed the south-eastern frontier of the District near Chachcha, called by them *Chatcza*, on the 10th June 1614, and the account of the rest of their journey as given in their own words is as follows :—

"The tenth (we went) three course (kos) and came to *Chatcza*, which is a little Fort, the wals built of mud, enclosed with a Ditch, where the Mogoll maintayneth eightie or one hundred Horsemen to secure the way from Theeues. But they themselves are as very Theeues as any, where they find opportunitie.

"The Captaine of the Castle exacted vpon euery Camell of the Carauan two Abacees (abássis), although nothing be

* Perhaps the Naréchi stream.

due by reason, he and his haue wages of the King. The Agwans (so they call the Mountaine people) came downe to vs euery day where we lodged, rather to espy what they could steale, than to buy, as they pretended.

"The twelfth, in the euening, hauing made prousion for three dayes, we went thence 14 c. that night. The thirteenth 10 c. The fourteenth, 10 c. This day the people came downe to vs and brought Sheepe, Goates, Meale, Butter, and Barley in great abundance, sufficient for our selues and our Cattle, at reasonable prices. And from this place forwards the people daily did the like, sometimes also bringing Felts and coarse Carpets striped. The fifteenth, we went 6 c. The sixteenth, 4 c. The seventeenth, tenne. The eighteenth, 9 c. The nineteenth, 9 c. to a little Towne of the Agwáns called Duckee*, where the Mogore (Mughal) maintayneth a Garrison, with a little square Fort, the wals built of mud a good height, distant a mile from the Towne. Heere wee stayed three dayes, because the Carauan could not agree with the Captaine of the Castle, who pretended a dutie on euery Camell, which at last they payd, one *Abacee* and a halfe on each. The three and twentieth, we went 6 c. The four and twentieth, we passed by a place called *Secota* or three Castles, because of three villages triangle-wise seituate on the side of a hill neer together. Wee went 8 c. The five and twentieth wee rested by reason of foule weather. The sixe and twentieth, 6 c. The seven and twentieth, 14 c. This day we passed the *Durues*, or Gates of the Mountaines, being narrrow straits, hauing Rockes on both sides very high, whence with stones a few may stop the passage of a multitude; and diuers Carauans haue beene in these places cut off. This night where we lodged we suffered diuers insolencies from the Agwáns, and on the morrow they exacted of vs as wee passed by a small village called Coasta† two Abacees and a halfe on each Camell. The eight and twentieth, 5 c. The nine and twentieth, by Abdun‡ a village, 8 c. The

* Duki. † Kowás. ‡ Hamadun.

thirtieth, 6 c. The first of Iuly, 7 c., to a place called Pesinga*, a small Fort much like vnto Duckee." HISTORY.

The route taken by Messrs. Steele and Crowther from Duki onwards would appear to have brought them the first march to some place in the Baghao valley. Thence to a locality in the Tánda Wani valley where there are still to be seen the ruins of three *kalas* or forts called the Dom Kala, the Ráni Kala and the Kárwán Kala, all situated on the south side of the Naghar hill which separates Pui from Wani. These three *kalas* are even now known as Seh-Kota and seem to correspond with the description given by the English travellers. The locality of *Coasta* mentioned in their route also corresponds with the Kowás of the present day in the Sibi district which is still pronounced by the people of the country as Kowást.

The Safavids, 1622 A.D.

In 1622, Kandahár again passed under the Safavids when Sháh Abbás conferred the Government of Pishín and its tribal dependencies which probably also included Duki upon Shér Khán the Tarín. The latter appears to have become semi-independent, and refused, seven years later, to submit to the Governor of Kandahár, Ali Mardan Khán, and an encounter took place near Pishín in which Sher Khán was worsted and had to retire to Duki and Chotiáli.

Expedition under Prince Dára Shik[oh]

Later on, the Emperor Sháh Jahán made great efforts to regain the province of Kandahár from the Safavids, and with this view sent in 1653 a large expedition consisting of over 104,000 men, under his eldest son Prince Dára Shikoh. The prince marched† viá the Sangar pass and Duki to Pishín, while his heavy guns made their way by the Bolán pass. The Persians had forts at Duki and Chotiáli, and on reaching the Sangar pass, a body of 700 picked horsemen, under Jahángir Bég, was sent forward to try and surprise the Persian posts. In seven marches Prince Dára Shikoh reached the frontier of the

* Pishín.

† This account is taken from the *Tárikh-i-Kandahár*, or the *Latáif-ul-Akhbár* of Rashíd Khán.

HISTORY.

Jajah* country and the third stage from this place brought him to Sang-i-Nuksán which was held to be the boundary between Hind and Kandahár, that is where the jurisdiction of the Multán *súbah* terminated on the west and that of Kandahár commenced. Here a report was received from Jahángír Bég that the Persians had abandoned Duki and Chotiáli, and that the Kákar Afgháns had closed the pass called the Kotal-i-Ziáratgáh. The next march brought Dára Shikoh to Chotiáli where plentiful supplies were obtained. Thal was next reached and then, Duki, Seh-Kotah, Tabak-Sar and Pishín. After a lengthy investment Dára Shikoh had to abandon the siege of Kandahár and return by the route by which he had come. This was the last attempt on the part of the Mughals to regain Kandahár which was now lost to them for ever. The Province continued under the Safavids, but the Afghán inhabitants had become so highly discontented owing to the persecutions of the Persian governors that they rose under Mír Wais Ghilzai, who established the Ghilzai power in Kandahár in about 1709. After about 30 years of supremacy, the Ghilzai power gave way to Nádir Sháh who in 1737 marched on Kandahár at the head of 100,000 men and after a severe struggle, Mír Husain Khán, the last of the Ghilzai rulers, submitted. In 1747 Nádir Sháh was assassinated and the Afgháns with a view to organise a regular Government of their own elected Ahmad Sháh Durráni, a ruler of Kandahár towards the close of the same year. Ahmad Sháh, says Dr. Duke, swept away the old revenue system of Thal altogether, though at first he attempted to adminster the valley as a Kandahár District. After a visit to it, he appointed a governor named Agha Ján to represent him; this man irritated the Taríns who murdered him; Ahmad Sháh indignant at this act marched on Thal with a force. The Taríns humbled themselves before him, and pleaded the tyranny of the King's *náib* or deputy as an excuse for having killed him; they succeeded in appeasing Ahmad Sháh's wrath, and an annual tax, in lieu of all other

[Margin: ...dir Sháh.]

[Margin: ...mad Sháh ...ráni.]

* Khétrán valley.

claims, amounting to Rs. 3,104 (*kaldár*) was levied on the Tarín cultivators living on the Thal and Anambár perennial streams. *Sanads* granted by Ahmad Sháh to some of the leading Kákars of the Arab Khél sections are also extant in which he appointed them *kháns*; the descendants of these men at present reside in the Bori tahsíl. In one of the *sanads*, dated 23rd Shaabán, 1162 H., corresponding with 1748 A.D. addressed to one Lálu Kákar, mention is made of the collection of revenue and the improved methods to be arrived at for the future. HISTORY.

The Durránis were followed in about 1826 by the Bárakzais under the first Amír of Afghánistán, Dost Muhammad, and almost the whole of the District now under direct administration remained under the more or less nominal suzerainty of those two dynasties till 1879, when by the Treaty of Gandamak signed on 25th May 1879, Duki and the Thal Chotiáli country with other parts of Baluchistán passed into the hands of the British. 1826 A.D.

The steps by which the different parts of the District have come under British control have been gradual. Previous to the Afghán war of 1878—80 the advisability of opening up the old Thal Chotiáli trade-route, as an alternative route, should it happen that the Bolán might be for any reason closed to traffic, had been for some time under consideration, and efforts had been made from 1875—78 to effect this but without success. In 1879, at the close of the first phase of the Afghán war, the troops returning to India from Kandahár were ordered to march back along this route in three columns. No serious opposition was offered until the first of the columns reached Baghao. It consisted of one regiment of infantry, two squadrons of cavalry and four guns under the command of Major F. S. Keene, 1st Punjab Infantry, who was accompanied by Major Sandeman. At Baghao the advance of the column was opposed by a large body of tribesmen, about 4,500 strong, from the Zhob and Bori valleys, under the command of Sháh Jahán, Chief of

HISTORY.

Zhob. After an action lasting about three hours, the enemy were completely defeated with heavy loss. The entire force marched without further molestation, some through the Bori and Chamálang valleys, and some by Thal Chotiáli, to the Bárkhán plain and thence by Fort Munro or the Cháchar pass to the plains of Déra Gházi Khán. At Chotiáli, the force was joined by 500 infantry and 300 cavalry under General Prendergast from Vitákri.

In 1879, with the object of extending British influence over the Marris, Músa Khéls, Khétráns and other tribes, a detachment was located at Vitákri in the Khétrán country. It was, however, withdrawn in October of the same year.

Thal was next visited by Captain Showers, Assistant Superintendent of Levies, in the autumn of 1879, and towards the end of that year, Sir Richard Temple, Governor of Bombay, also went there. The escort which had accompanied him and Sir Robert Sandeman and which consisted of about four companies of infantry, two mountain guns, and a squadron of cavalry was left behind at Thal as a garrison.

In August 1880, as a result of the Maiwand disaster, Thal Chotiáli was temporarily abandoned. In October 1880, however, the expedition sent under General Macgregor to punish the Marri tribe marched through Thal on its way to the Marri country and Thal was re-occupied by a regiment of cavalry, one of infantry and two mountain guns, and placed under the political charge of Lieutenant R. H. Jennings, R.E., who was assisted by K. B. Hak Nawáz Khán, Native Assistant, and by a Tahsíldár. In February 1881, Lieutenant Jennings was relieved by Surgeon-Major O. T. Duke and Thal Chotiáli which included Duki, was made a sub-district of the Harnai Political Agency, under the charge of a Native Assistant.

The Buzdár column.

At the close of 1881 a small force known as the Buzdár column on its way back from Kandahár marched to India viá Thal Chotiáli, the Chamálang and Buzdár country to Déra Gházi Khán. It consisted of one battery of artillery,

four companies of the 63rd Foot, 2 regiments of Native Infantry, one company of Sappers and one squadron of Sind Horse under the command of General Wilkinson. HISTORY.

In 1881 as a consequence of the settlement by Sir Robert Sandeman of the cases between the Taríns of Duki and the Dumars and Utmán Khéls the inhabitants of Sanjáwi were brought under British protection, and the tahsíl was placed under the charge of the Political Agent, Thal Chotiáli.

In March 1883, Mr. (afterwards Sir Fred.) Fryer, Deputy Commissioner of Déra Ghâzi Khán, took advantage of a visit made by him to Chamálang to endeavour to settle matters between the Músa Khéls, and the Hádiánis and Durkánis who were at constant war with each other. His efforts were successful and resulted in a truce being made. In 1883 it was decided to build a cantonment at Duki and the garrison of Thal Chotiáli consisting of one Native Mountain Battery, one squadron cavalry and six companies infantry was moved to that place, leaving a detachment at Gumbaz near Thal Chotiáli. An Assistant Superintendent of Levies and *ex-officio* Assistant Political Agent was appointed in the same year and placed at Duki, the first incumbent of the appointment being Captain G. Gaisford of the 5th Punjab Infantry.

In 1883, in consequence of disturbances arising between the Khétráns and their neighbours, the question of the control of the Khétrán tribe was raised. This tribe had petitioned in 1880 to be taken under British protection and had expressed their willingness to pay revenue. It was decided in 1884 that the political management of the Khétrán tribe should be vested in the Baluchistán Agency, and that communications with the tribe should be conducted under the authority of the Agent to the Governor-General by the Political Agent, Thal Chotiáli.

Relations with Kákars.

In 1883 and 1884 a series of murderous attacks were made upon British subjects in Thal Chotiáli by different clans

HISTORY.

of Kákars under the influence of Sháh Jahán, the fanatical chief of Zhob, culminating in an attack made on the 21st of April 1884, on a camp of labourers employed on the new cantonment buildings at Duki, seven of whom were killed and a number wounded. Accordingly orders were issued by the Government of India for the movement of troops into Zhob, and in October 1884 a force of 4,800 men and 10 guns assembled about Thal Chotiáli under the command of Major-General Sir O. V. Tanner, K.C.B., and moved into the Bori valley. Sir Robert Sandeman accompanied the force. The expedition of which an account will be found in the *Gazetteer of Zhob* was completely successful. The chiefs of the Bori valley hastened to attend the *Durbár* held there by Sir Robert Sandeman and made full submission, and after the capture of Sháh Jahán's fort at Akhtarzai and the defeat and dispersion near that place of a body of about 500 tribesmen all the principal chiefs of Zhob excepting Sháh Jahán also submitted. The Bori and Zhob chiefs on the 22nd of November 1884 executed an agreement accepting the supremacy of the British Government and promising to put a stop to further raids, to pay a fine of Rs. 20,000, and that the British Government should be at liberty to station troops in their respective valleys, should it deem this advisable. A copy of this agreement is printed as Appendix II.

In the following year it was decided that a frontier road should be constructed from Déra Ghází Khán to Pishín through the Bori valley, and that the latter valley should be occupied. The cantonment from Duki was accordingly moved forward in 1886 to Loralai and military posts were stationed at Sanjáwi, Mékhtar and Kingri. The headquarters of the Assistant Political Agent at Duki were also changed to Loralai.

In 1887, in consequence of the construction of the frontier road, it was deemed expedient that a closer control should be exercised over the administration of the country inhabited by the Khétrán tribe, and the Bárkhán and other

valleys, which had previously been under political control only, were brought under direct administration. The Tahsíldár at Thal was transferred to Bárkhán and a Náib-Tahsíldár appointed in his place, tribal levies were organised and a light revenue was assessed. HISTORY.

On the 1st of November 1887, Duki and Thal Chotiáli together with other tracts within the limits of the Thal Chotiáli Agency, were declared parts of British India, and for purposes of administration as regards these tracts, the designation of the Political Agent was changed to that of Deputy Commissioner.

Though a settlement had been arrived at with the Músa Khéls after the expedition of 1884, no attempt had been made to control or administer the territory. Towards the close of 1887, a band of malcontents having their headquarters at Mína Bázár, the principal village in the Lower Zhob valley, committed a series of outrages on labourers employed upon the frontier road, and it was determined that the Agent to the Governor-General should visit the locality, punish the guilty and take security for their future good behaviour. Accordingly in November 1888, Sir Robert Sandeman proceeded with a small force through the Músa Khél country to Mína Bázár. Here all the *maliks* submitted except Umar Khán, chief of the Abdullazais, who fled, but was pursued by Captain McIvor, the Political Agent, captured and brought back. After settling at Mína Bázár the various cases against the tribes and exacting compensation for injuries, Sir Robert Sandeman, on the invitation of the Mando Khél Chief, proceeded to Apozai, and thence returned by the Central Zhob route to Loralai. During this tour the leading *maliks* of Zhob presented petitions praying to be taken under British protection and expressing their willingness to pay revenue in return for peace and order. This led to the occupation of Apozai and the Zhob valley in 1889. The two newest tahsíls of the Thal Chotiáli Agency, namely, Bori (including Baghao, Sanjáwi and Smállan, etc.), and

HISTORY

Bárkhán, which did not form a portion of British Baluchistán, were transferred to the Zhob Agency. The Músa Khél country was also included in that Agency, a tahsíl being established there in 1892. Loralai was fixed as the head-quarters of the Deputy Commissioner, Thal Chotiáli, and Political Agent, Loralai and Railway District, as that officer was now styled. The town and cantonment remained under the Thal Chotiáli District until 1894, when it was made over to the Zhob Agency. As first constituted, therefore, the Zhob Agency included Bori, Bárkhán, the Zhob country proper including the Mando Khéls and the Kibzai and Músa Khél countries. In February 1891, Sanjáwi was again transferred to Thal Chotiáli and Bárkhán was added in April 1892. The Dumar District of Baghao, Smallan, etc., was also included in the Thal Chotiáli Agency. In October 1903, the Thal Chotiáli and Zhob Agencies were remodelled, the name of the former was changed to Sibi District and a new District, Loralai, was created. To this were transferred the Músa Khél and Bori tahsíls from Zhob and the Duki, Sanjáwi and Bárkhán tahsíls from the Thal Chotiáli District.

The following officers have held the appointment of Political Agent since the formation of the Agency in 1903:—

Captain A. L. Jacob, I.A., 17th October to 11th November 1903.

Mr. W. S. Davis, 12th November 1903 to 2nd November 1905.

Major C. A. Kemball, I.A., C.I.E., 3rd November 1905.

ARCHÆOLOGY.

There are no old buildings of any kind in the District to indicate its condition in ancient times, but many mounds and ruins of mud forts which are commonly ascribed to the Mughals are scattered throughout it with the exception of the Músa Khél tahsíl. Among these may be mentioned the ruins (*shar ghalai*) at Bhani, Kach, Bohri, Utbo, Kále, Duhla, Khahra, Mohrún, Tamani, two in Tang Kárér, one near Chapar Gul Khán and two in Chacha in the Bárkhán

tahsíl. Near Mat in the same tahsíl is the Kéwán spring and the hillock close by is strewn with small stone cairns, where, according to local tradition, Hazrat Ali fought a sanguinary battle against the *Káfirs* (infidels) and killed thousands of them. In the Duki tahsíl the principal *shar ghalai* are Sánwal Kila, the ruins of a mud fort on the Tabi hillock, said to have been built by a Mughal woman called Sánwal who ruled in this part of the country, one near Duki, one in Sangori, one at Bargar, and the Thal *shar ghalai* which was visited by Dr. Stein, Archæological Surveyor, N.-W. F. Province and Baluchistán, and an account of which is given further on. In Sanjáwi there are ruins of Mughal forts at—Pásra, Súr Jangal, Sanjáwi, Landi, Zhar, Gharyák, Laraghar Kila, Kándér, Seh Kota in Wani, Bulandi near Chingi Hangáma and Mughlo Kala at Wuch Salám. Traces of old wells and water channels, ascribed to Mughals, are also pointed out at the head of the Kharáshang valley. ARCHÆOLOGY.

In the Bori tahsíl the "Monastery Hill" which was also visited by Dr. Stein, is interesting and an account of the forts on it is given later. Other places of archæological interest are—the Chappri hillock close to Mehwál village, on which are the ruins of a fort called Khaibara Kala, so called after a Mughal lady who once ruled here; the Ghwae Chappri, which represents a petrified bullock belonging to this lady; the Riása, Chaj, and Kása Ghundis at the head of Anambár which are respectively said to be a heap of grain (*riása*), a heap of straw, and a *kása* or wooden measure, all petrified. The *shar ghalai*, near Dirgi Kudézai, lies close to the road and earth dug from it is now used as manure. The Mughlo Kala in Shábozai seems to have been once an important structure. It is a square building with bastions at each corner and an outer enclosure wall, all in ruins. Local tradition asserts that heads of men, killed by the Mughals, were inserted in the walls and hence skull bones are often found in the ruins. There are also some caves in the sides of the Siázgi hill, which are known as the Ráni

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Chotídh; and also a white mound called Spínghundi in the same vicinity.

Mounds in Thal.

In regard to the mounds in Thal, Dr. O. T. Duke wrote in 1883:—

"There are in Thal and its neighbourhood several lofty mounds, the sites of old castles now in ruins; these are also stated by the Taríns to have been 'from the Mughal's time,' but as they exactly resemble the similar forts at Kalát-i-Nasír Khán, Kwat-Mandai and Sángán which were undoubtedly the work of Hindus; and as we know, that in the early days, the whole hill country from Kashmír to Mekrán was ruled by a Hindu Rája, whose title was Sihar or Sihan, we may conclude from the appearance of these mounds that the Mughals displaced or absorbed an extensive Hindu population ruled by powerful chiefs. As the Hindus burn their dead, they left no tombs behind them, and the only domed tomb now existing is a building which is stated to have been put up in memory of a Kákar saint who came from Bori and whose name is now quite forgotten. The Taríns state that when they occupied the Thal plain, this tomb was in existence; there are also ancient brick-kilns in which bricks of a square or oblong shape are found; these bricks are at least three inches thick, and in some cases 18 inches long by 9 inches wide. There can be no doubt that in former days Thal was much more prosperous than it now is; the ancient ruins above alluded to are near the present villages of Chotiáli, Yáru and Duki on main water channels."*

Ancient sites of Loralai and Thal.

Dr. M. A. Stein, Ph.D., Archæological Surveyor, N.-W. F. Province and Baluchistán, who visited these localities in 1904, has recorded a detailed and interesting account† from which the following has been extracted:—

* *A historical and descriptive Report on the Thal Chotiáli and Harnai Districts*, by Surgeon-Major O. T. Duke (Calcutta, 1883), p. 158.

† *Report of Archæological Survey Work in the N.-W. F. Province and Baluchistan* for 1904-5, Part II, Section XI.

"The ruined fortifications of 'Monastery Hill' near Loralai, which form by far the most conspicuous of ancient structural remains I saw or heard of in Baluchistán, were first mentioned to me on my visit to Loralai by officers of the 32nd Lancers. They crown the two westernmost ridges of a group of low hills which rise from the level of the valley about three miles to the south-south-west of Loralai cantonment. These ridges are narrow on the top and rise with steep stone-covered slopes to a height of about 200 feet above the flat of the valley, which is now irrigated in extensive patches both to the north and south. The ruins are those of two separate forts, one crowning the top of a small narrow ridge to the west and the other stretching in a form resembling a horseshoe along the crest of a larger ridge on the east.

ARCHÆOLOGY. Forts of "Monastery Hill," Loralai.

"The western fort, as seen from the south-east, still retains the foundations of its walls clearly at the north end and along the east face. Its length from north to south is about 180 feet with an average width of 40 feet. At the south-east corner the main wall is adjoined by a tower-like structure, built on a small terrace about 25 feet below the top of the extant walls. This tower or bastion has on the north and east sides a semi-circular wall still standing to a height of 12 to 15 feet, and showing a narrow window or loophole 8 inches wide and about 3 feet high. The wall has here a thickness of close on 7 feet, and is constructed like the rest of the outer walls of both forts of roughly hewn blocks, from 1½ to 3 feet in length and 8 to 10 inches in height, set in regular courses. The material of the walls throughout was undoubtedly cut out of the rocky slopes of this or the neighbouring ridges, which show an easily cleaved white stone resembling chalky shale, bedded in well-defined horizontal strata. Whether this tower was meant to shelter a tank or possibly a well is not quite certain. The cutting-off of the rock face on its west side suggests this. On the top of the ridge within the circumvallated area the foundations of transverse walls, about 4 feet thick,

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probably intended to form rooms, are traceable in numerous places. The outer walls show here and in the eastern fort an average thickness of 6 feet.

"The eastern ridge crowned by the second fort is separated from the western one by a small valley closed on the south by a connecting *col* which at its point of greatest dip lies about 80 feet below the top of the western ridge. Following the crest line of the eastern ridge, the second fort shows a central part, about 340 feet long, stretching from east to west, with an extension running due north from the western end for about 290 feet, and another at the opposite end directed to the north-east and about equally long. This extension is particularly narrow; but the average width of the interior is nowhere more than 40 feet, except in the middle, where two bastions projecting on opposite faces extend the width to about 100 feet. One of these bastions has a deep pit-like depression within it which may possibly mark the position of a storage tank or well: the other is rectangular and relatively well preserved with walls rising to about 15 feet; so also is a third bastion semi-circular in shape and situated at the south-west corner. The northern extension ends in a small outwork about 40 feet square, of which the walls rise still to about 10 to 12 feet; the north-eastern one, which occupies the highest part of the ridge, runs out in a ravelin-like point. Interior walls, much decayed, meant to divide small rooms, are traceable along part of the southern face and also within the extensions.

"Of carved stonework I could find no trace, nor any remains which could possibly suggest a religious purpose such as the modern conventional designation 'Monastery Hill' suggests. The scantiness of potsherds on and about the ridges was very striking, and seems to me to indicate an absence of prolonged and continuous occupation. The few fragments of painted pottery found showed simple ornamentation in red and black stripes. Seeing the position and

character of the ruins, I believe we may recognise in them ancient forts built like Adh-i-Samudh to afford places of refuge in times of need for settlements in the plain below. I did not hear of any coins or other antiques having ever been found on these ridges.

Sherghalai mound, Th

"This mound is ten miles south-east of Duki and about three miles to the north-west of Thal Fort. The mound, known from a neighbouring locality also as that of Dabarkot, rises most conspicuously in the middle of a large plain no part of which nearer than about two miles is at present under cultivation. Equally imposing by its height, about 80 feet above the surrounding plain, and by its other dimensions, it is certainly the largest ancient mound known to me on the Frontier. The area covered by the mound at its base is probably fully 500 yards long from north-west to south-east, while its maximum width, including the broad spurs projecting to the south and north-east, can scarcely be much less. The highest portion of the mound lies towards the north-west, and forms on its top a fairly level plateau measuring about 70 yards from north-west to south-east with a maximum breadth of about 65 yards. From this highest portion of the mound lower spurs descend with broad terrace-like shoulders to the north-east, south-east and south. These are separated from each other by two deep-cut ravines running east and south-east, which owe their origin entirely to the erosive action of rain. The ravines, which in most places bear the look of fantastically fissured gorges, permit an examination of the interior composition of the mound down to a level of about 60 feet from the top. The strata exposed by their often vertical sides show plainly that the whole mound consists of accumulated rubbish and clay such as must have been used in the construction of walls and houses. Following the south-east ravine down to its bottom, I traced throughout strata containing ashes, bones and rubble. Pottery, which thickly strews the top of the mound as well as the surface of its lower spurs, diminishes in

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quantity as one descends, but I found small pieces of hard red pottery in undisturbed strata about 40 and 60 feet below the present top. The bottom of the ravine is throughout thickly covered with pottery debris, but, of course, most of this is likely to have been washed down from the top and out of higher layers.

"Fragments of decorated pottery were found by me only on the top and on the surface of the north-west slope not far from the top. They were few in number, and showed simple patterns painted in black and red stripes or else crudely embossed or incised scrolls and similar ornaments. Potsherds with a light greenish-yellow glaze were plentiful on the top, but none were picked up from the lower strata. I conclude from this that the decorated pottery belongs to a relatively recent epoch. A mound of such height could have been formed only by the rubbish deposits of a long succession of periods of occupation, and it appears to me very probable that the earliest of these are altogether prehistoric. Large rough stones found on the top and on terraces of the mound may be the remains of small rubble-built towers or walls of relatively recent date erected on this commanding position. But the mass of dwellings successively built on the mound was constructed, no doubt, of clay only, and the crumbling away of this material has probably contributed more than any other cause to the rise in level. Of masonry of any kind neither the slopes nor the sides of the ravines disclosed a trace.

"According to Mr. Davis' information a pot with about 200 Muhammadan silver coins was some years ago discovered on the top, but none of them could now be produced for examination. Judging from the description given to me these pieces may have belonged to the Ghaznavi or Pathán dynasties. These coins would have been very useful for the purpose of approximately fixing the latest date up to which occupation of the mound continued. Otherwise finds of coins appear to be exceedingly rare, while those of beads are

common. It is noteworthy as an indication of the large settlement which must at one time, not necessarily very remote, have clustered around this great mound that the plain at its foot for about half a mile in each direction is strewn with fragments of plain pottery and rubble. The view from the top is very extensive, comprising the greatest part of Thal, to which are counted at present some 13 to 14 villages. Excavations for manuring soil appear so far to have been carried on only to a limited extent at the foot of the mound." ARCHÆOLOGY.

Messrs. Steel and Crowther to whom a reference has been made in the section on **History** passed by these villages on the 24th of June 1614 on their way from Ajmér to Isfahán. The ruins of the villages were visited by Rai Sáhib Jamiat Rai, Gazetteer Assistant, in September 1903, who furnished the following account of them:— Ruins of Seh Kota in Wani in the Sanjawi tahsíl.

"In the morning we went to Wani, the garden of Mullá Kháni Wanéchi, which lies about four miles from Chautér on the Chautér-Smállan road. Here we left the horses, and walked about one mile along the Pézhi path to Pui till we came to a hillock or *ghundi* on which are heaps of stones and stone walls. This place is still called the 'Dom Kala*' or the village of the musicians. The small *mánda* or hill torrent to the south of the Kala is called Khákhán. The Haro-Ana shrine is about a quarter mile south on the main road. This is the easternmost village (Kala) of the group of three villages called Seh-Kot or Seh-Kota situated on the spurs of the Naghar hill, which separates the Pui from the Wani valley. To the south of the road is the Chaman or Jilga where there are small springs and grass

" From the Dom Kala we walked about two-thirds of a mile west to another small spur on which are scattered the ruins of Ráni Kala. The Ráni Kala seems to have been divided into two parts, the northern or upper and the southern or lower part, which are separated by a gap. The

* Some of the people also call it Lohár Kala.

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length of these two Kalas is about one-fourth of a mile and the breadth of the lower portion is about 100 yards. All that remains of the Kala now are loose stone walls of several houses, and outer defence walls which in some places are even now over 10 feet high. The number of houses of which the ruins exist in the southern quarter is over one hundred. In this part I saw a white rock, stuck in the ground which has a round hole in it :—

Depth 1′ 6″.
Diameter 8″.

This, I was told by one of the *maliks*, was used for pounding gunpowder. Along the southern portion of this Kala is a *mánda* (hill torrent) and the western part of the hill, on which the Kala stands, is rather steep and is about 80 feet high. There is a spring of water called Khákhán about 100 yards from the Kala and it has two local saints (Wanéchis, a brother and a sister) to guard it. But the inhabitants of the village, whoever they were, were not content with the protection which the saints afforded and they evidently had, so the ruins indicate, a strong post to guard it. Not only that, but on the top of the hill from which this spring issues, there are still some stone walls which would lead one to believe that there was a post or watch tower there. The Wani *malik* who was with me said that the supply of water in the spring is at present much too small, but that the people had a firm belief that previous occupants shut up the spring by big stones and that if these were removed the water would increase. The local tradition believes that the water of the Khákhán spring was taken to the Ráni Kala by means of pipes made by joining the horns of wild goats.

"From here, we walked about half a mile south and came to another spacious enclosure, the southern wall of which is only about 15 feet from the main road. This is called the Kárwán Kala. It had stone walls (with an enclosure on the south) on south-east and west, and some shelter huts on the north; the space in the middle was probably reserved for animals.

"I met at Chautér village Músa Wanéchi who is now about 90 years old. He gave me the following information about Ráni Kala and the Wani country generally :—The Wani district once belonged to the Adwáni Taríns. At that time the Wanéchis Mandai and Daltáni were living in Smállan and the Míránis (descendants of Umar) in Kasaghar. There were seven brothers and a sister called Ráni (Adwánis) who built the Ráni Kala. The Kala or village was named after the sister, and not after the name of any one of the brothers, because she was a *sati* (a virgin who takes a vow of lifelong celibacy), possessed superior intelligence, and settled all disputes, etc. She allotted an enclosure for caravans (Kárwán Kala), and as the musicians have not a good repute, she placed them in a separate *kala* by themselves. The water of the Khákhán spring was raised to the Ráni Kala by means of horn pipes. The Ráni with her brothers used to hunt wild goats in the Naghar, a particular slope of which, now known as Tavarai Skhar, was covered with dwarf palm mats. The wild goats were chased and then led to the top of the Tavarai Skhar where they tried to escape, but in making the attempt they slipped over the mats and rolled down to the bottom of the hill and were killed. Nádir Bádsháh came this way and unsuccessfully tried to take the Kala. He then put a quantity of *bhúsa* into the spring (Khákhán) which choked the passage of water in the horn pipes and stopped the water-supply. The occupants of the Ráni Kala mostly died of thirst, and when reduced to straits, the Ráni and her brothers sued for peace. They came down from the fort and Nádir Bádsháh offered Ráni a present of four swords or the same number of mares. She accepted the latter. Four mares were placed in rows of two, and Ráni was put thereon, each leg and arm tied on to a mare, the mares were then made to run and Ráni was torn to pieces, and her brothers were killed."

A large quantity of old coins was once discovered at Dabar Kot in the Duki tahsíl, but none of these can now be traced. Six copper coins were obtained from Bárkhán in

Old coins

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1903, two of which were identified to be coins of Sikandar II Lódi (894—923 Hijri=1488—1517 A.D). Two silver coins obtained in 1903 from Duki were found to be of the time of the Amayyad Caliph Marwán II, struck at Balkh in the year 128 Hijri=745 A.D.

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Ethnographical History.

It is certain that the present inhabitants of the District are comparatively recent immigrants but who their predecessors were there is nothing to show. That some of the earlier inhabitants were non-Muhammadan may be inferred from the traditions prevalent in the Khétrán country that Hazrat Ali fought against *káfirs* (infidels) close to the Kéwán spring in Mat, where cairns of blackish stone are still seen scattered about indicating the places where these *káfirs* were buried. It is said that there was so great a massacre that a stream of human blood flowed through which Ali made his famous mare to swim. Other traditions in the same country refer to the existence of a Jat Hindu colony, which was followed by the Lath Afgháns. In the central and western portions of the District, and in Bárkhán ruins of Mughal forts are also pointed out.

The principal divisions of the present inhabitants of the District are Kákars, Khétráns, Músa Khéls Dumars, Taríns, Lúnis and Péchi Saiads. With the exception of the Khétráns all are Afgháns.

The following account of the Afgháns given by Mr. Hughes Buller, C.S., in Chapter VIII of his *Census of India*, 1901, volumes V and V-A., Baluchistán, may be quoted *in extenso*:—

"The special interest in the Afgháns for Baluchistán lies in the fact that the traditional home of the race lies within its boundaries. Afghán genealogies, whatever be their value, all commence from Qais Abdur Rashíd, who is alleged to be thirty-seventh in descent from Malik Talút (King Saul). His home was in the tract immediately to the west of the Koh-i-Sulaimán, which is known to the Afgháns as Khurásán, and to us as Kákar Khurásán. From Qais Abdur Rashíd sprang three sons—Ghurghusht, Saraban and Baitan,— and

the descendants of these eponymous ancestors are still to be found living in large numbers round the slopes of the Takht-i-Sulaimán. From Ghurghusht, according to the genealogists, were descended three sons—Mando, Bábi and Dáni. The descendants of Mando are represented by Mando Khéls of Zhob. We have a few Bábis in Quetta-Pishín and Kalát, and although Dáni has not become the eponym of a tribe, his descendants constitute two of the most important tribes of the Province. These are the Kákars and the Pannis. His two other sons were Dáwi and Naghar. There are a few Dáwis living among the Pannis of Thal Chotiáli, whilst Naghar's descendants are to be found in the Náhars among the Marris and Khétráns. There are also a few of the latter among the Utmán Khél Kákars of Bori.

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"Saraban's descendants divide themselves into two groups, whose ancestors were his two sons, Khair-ud-dín *alias* Kharshabún and Sharf-ud-dín *alias* Sharkhabún. Kharshabún's immediate descendants are represented by the Zamands, a few of whom are to be found in Pishín, and the Kánsis, who live close round Quetta. The rest of the descendants of Kharshabún are the Yúsufzais, the Tarkalánri, and the Utmán Khél, the main body of whom are to be found in Dír, Swát and Bájaur, whilst a few are said to have amalgamated with the Dehwárs of Mastung.

"The descendants of Sharkhabún, Saraban's other son, were five in number: Tarín, Shíráni, Miáni, Baréch and Urmar. Tarín, Shíráni and Baréch are at once identifiable as the names of important tribes still to be found in Baluchistán. It is only among the Marris that the name Miáni can be localised, where they constitute only a small group, but other representative descendants of this grandson of Saraban are the Lúnis of Thal Chotiáli, amalgamated with whom are to be found the descendants of another son of Miáni, the Laths; the Jáfars of the Músá Khél tahsíl; the Silách, who are to be found among the Hasni section of the

POPULATION. Khétrán tribe; the Zamarais; and the Bulfarz or Bulfarth section of the Isot tribe.

"Few of the descendants of Baitan have their homes in this Province, but many of them revisit the homes of their ancestors in the course of their annual migrations. I refer to the numerous nomad sub-divisions of the Ghilzais, the Sulaimán Khéls, Násars, Kharotis, and others. Close to our borders, across the Gomal, the name of the common ancestor can still be localised in the Baitannis of the Déra Ismáil Khán District."

The Khétráns claim both Baloch and Afghán affinities, but the majority of them are probably of Jat extraction. The Músá Khéls and Lúnis allege that leaving their homes in Khurásán they marched southwards, the Lúnis coming westward to the country they now occupy. The Sanzar Khéls separated from Hindubágh and came south-eastward to Bori, while the Taríns and Dumars are said to have come by Pishín and Kowás to Smállan, Baghao and Duki.

Density. The first regular census of the District, the results of which have been published, was carried out in 1901. The District was divided into two divisions for the purpose—(*a*) the towns, military posts, bazars, etc., in which a synchronous enumeration was made on the standard schedule, and (*b*) the remainder of the District, in which a rough house to house enumeration was made by the subordinate revenue staff. This was not synchronous. The results arrived at gave a total population of 67,864 of which 4,248 were censused on the standard schedule and represent, in the main, the non-indigenous population of the District. A detailed statement containing the principal census statistics will be found in table II, Vol. B. As the tahsíls now included in the Loralai District formed part of the old Thal Chotiáli and Zhob Districts at the time of the Census (1901), a detailed statement of the indigenous tribes has since been prepared and embodied in Vol. B as table III.

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According to the Census of 1901, the total number of occupied houses in the District was 14,735; 878 in the towns and 13,857 in the villages. Of the total population of 67,864 the urban part numbered 3,561. and the rural portion 64,303. The incidence of population per square mile is 8, the highest being 15 in the Sanjáwi, and the lowest 6 in the Duki tahsíl. The population per house in urban areas is 4 and in rural areas 5.

Towns and villages.

The only town in the District is **Loralai**, which has grown up since the British occupation, and is largely inhabited by an alien population.

In pre-British days the District was the scene of constant raids by various tribes, and, the people being obliged to live together for mutual protection, the number of villages was smaller. There is now a tendency to spread out, and it is stated that since the British occupation 128 new villages and hamlets have been established.

The District possesses a total of 439 villages, in an area of 7,999 square miles or one village in 18 miles. Except the Jáfars who live in permanent villages, the majority of the people of Músá Khél tahsíl are nomads and have few villages, and that tahsíl has only one village in every 36 miles; Sanjáwi has one village in 11 miles; Bárkhán and Bori one in 12 miles; and Duki one in 28 miles. There are only three villages, which have a population of over 1,000 souls, viz., Pui (1,393) in Sanjáwi; Mékhtar (1,107) in Bori; and Shéra and Ismáíl Shahr (1,096) in Duki. Other important places are mentioned in the **Miniature Gazetteer** of each tahsíl.

The villages are of the usual type of Pathán village and consist mainly of hovels made of mud placed together without any definite plan. Some of them are surrounded by mud walls, with mud watch towers as places of refuge. The villages are generally very dirty and unsanitary. Orchards enclosed in high walls are found in some of the more important villages in Sanjáwi, Duki, Bori and Bárkhán.

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Growth of population.

Previous to 1901 no regular census was attempted, and the growth in population cannot, therefore, be illustrated by reliable figures. The first attempt to take a census was made during the cold weather of 1889-90 in the old Thal Chotiáli District, through the chiefs or *tumandárs* of various tribes. The village statements were completed in the beginning of 1890-1, but the Músá Khéls who had recently come under control and were then included in the Zhob District were left out of even this rough estimate. The total population of the remaining four tahsíls was estimated to be 35,965, to which Duki contributed 8,009, Sanjáwi 5,532, Bárkhán 10,646 and Bori including the Loralai bazar and cantonment 11,778. In 1901, when a systematic attempt to take the census was made, the total population was found to be 67,864. The figures of 1901 show an increase, over those of 1891, of 54 per cent in Duki and Bori, of 40 per cent in Bárkhán and 24 per cent in Sanjáwi. This increase in the population of the District may be attributed not only to the improved methods on which the census of 1901 was carried out but also to the increased security of life under a settled Government, and the rise in the standard of living which has undoubtedly taken place among the indigenous population and which has led to more frequent marriages and a consequent increase in the birth rate.

Migration.

The majority of the indigenous population of Duki, Bori and Bárkhán are settled, but in other parts of the District there is a constant flow of migration, due to the nomadic habits of the tribes, the variations in the climate, and the periodic visitations of scarcity and drought, which compel the inhabitants to seek more favoured localities.

In the Bori and Bárkhán tahsíls, many of the cultivators live among their fields in blanket tents, or mat shelters (*tauris*) from April to September. The Wanéchis of Sanjáwi move down to the Zawar valley in the Sibi District in winter, and some of the Dumar graziers go to Duki. During the summer months the Músá Khéls dwell in temporary sheds

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(*mandav*) among their fields, and in winter move into encampments on the sides of hills where they live in *kizhdis* (blanket tents).

Periodical visitors to the District are the Ghilzais, viz., Násar, Kharot, Shinwár, etc., who are mentioned under Ghilzais later on. They are to be seen in the District chiefly in the winter months, when they graze their flocks, engage in trade and transport or work as labourers.

The Jalálzai, Mardánzai, Bátozai and Kibzai of Zhob come to Loralai in winter to work as labourers. The Duki and more especially the Chamálang valley is a regular pasture ground in winter for flocks from Sanjáwi, Bárkhán and Sháhrig ; when the rainfall has been good and there is sufficient pasturage, the Marris of Kohlu, some of the Bugtis, and the Baloch border tribes of Derá Ghází Khán, such as the Durkáni, Hadiáni and Buzdár, graze their flocks in Bárkhán in August, September, October, April and May. A few of the Spín Taríns, Lúnis, Tor Taríns and Ustaránas of Duki go to Jhang and Multán in the Punjáb during winter months to import cloth and shoes. In years of scarcity and drought the Sadozai and Waliáni Lúnis graze their flocks in winter in Dérájat.

Immigration from India.

The immigrants from other Provinces in India are chiefly from the Punjáb and Sind. They are employed in Government and private service, and are also engaged in trade and labour.

Age statistics, vital statistics, infant mortality and infirmities.

No detailed record of age was attempted in 1901, except in the Civil and Military station of Loralai and the bazars at the headquarters of tahsíls which were enumerated on the standard schedule ; in the District adults were merely distinguished from minors. Out of a total Musalmán indigenous population of 61,322 there were 37,338 adults ; 19,841 males and 17,497 females. The number of children, 12 years and under, was 23,984 : males 12,938, and females 11,046.

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Vital statistics are not recorded in any place in the District. In 1905, a summary enquiry regarding the birth and death rate was made by the tahsíl officials, in a few selected villages, the result obtained indicating 5·47 per cent of births and 4·34 per cent of deaths on the total population during the preceding 12 months. The percentage of births of girls was 2·59 and of boys 2·88, while the death rate among boys was 1·4, girls 1·06, adult males 0·91 and adult females 0·97 per cent. The birth rate (7·41) was highest in the Músá Khél tahsíl, lowest (3·54) in Bori, and the death rate highest (6·84) in Bárkhán and lowest (1·71) in Sanjáwi. Longevity among the indigenous population appears to be infrequent owing to constant exposure, bad nutrition and uncleanly habits.

A similar enquiry made in 1905 shows that out of a total population of 12,811 the number of persons afflicted with infirmities was 109 or less than 1 per cent, and it included 43 blind, 9 mute, 44 deaf and 13 lepers. The lepers included 8 males and 5 females, and of these 6 were found in Duki, 4 in Músá Khél and 3 in Bori.

Comparative number of sexes and civil condition.

The disproportion of women to men in the town and cantonment of Loralai was very great in 1901, as there were only 142 women to every thousand men. It may be assumed that the disproportion is greater in March, when the census was taken, than during the summer, as many women leave for their homes in India in order to escape the cold weather.

The following table shows the proportion of females to males among the important tribes of the District :—

		No. of females to 1,000 males.
Afgháns	Lúni	952
	Tarín	944
	Zarkún	912
	Panri or Panni	884
	Jáfar	879
	Ustarána	809
	Isot	857
	Kákar	849
	Zamarai	670
	Ghilzai (nomads)	717
Khétrán		909
Saiad		889
Baloch		785 to 1,014

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Out of the total population of 67,864, civil condition was recorded in the case of 3,561 persons only. Of 3,118 males, 1,774 were married, 174 were widowers and 1,170 were unmarried. Of 443 females 273 were married, 26 were widows, and 144 were unmarried. The figures of course represent anomalous conditions prevailing among the non-indigenous inhabitants of the District. The excess of married men over married women is accounted for by the presence of a number of married men among the troops. The proportion of married males to females among Musalmáns was 942 to 166, among Christians 12 to 5, among Hindus 622 to 92; among unmarried Musalmáns the proportion of males to females was 777 to 85, and of Hindus 316 to 55.

No record was made of the civil conditions of the indigenous population.

Marriage customs.

Among the indigenous classes, every man marries as soon as he possibly can, but the payment of bride price (*walwar*) compels many to wait till middle age. This is specially the case with the poorer nomadic classes. Marriages almost invariably take place after puberty, one of the most important reasons being that the wife is expected to undertake many and various duties which can only be performed by a full grown woman.

So far as can be ascertained polygamy is rare, except among the well-to-do, though the people have no objection to a plurality of wives up to the limit of four allowed by the Muhammadan Law. The summary enquiry instituted by the tahsíl officials, to which a reference has already been made, elicited the information that in a population of 12,811, the number of married men was 2,610 or 20 per cent, of whom 183 or only 1·43 per cent of the population had more than one wife. The wealthy who alone can afford to pay *walwar* more than once take more wives than one, either for pleasure, or, sometimes, for the sake of offspring. Men of average means also occasionally take a second wife to assist in their work, as they find the bargain

POPULATION. a profitable one. Among the Afgháns polygamy is occasionally forced on the poor by the custom which requires that one of the surviving brothers or cousins must marry the widow.

Marriage with near relations formerly much in vogue, among many tribes, though not always the rule, is preferred, because exchanges can be easily arranged, the bride price payable is less, the parties are already mutually acquainted and their tribal relations are strengthened by the marriage tie. Generally speaking, social distinctions are not observed in marriage relations, but most of the tribes, except the Dumars, who have no scruples in this respect, do not give their daughters in marriage, to artisans such as blacksmiths, weavers, etc. The *sardár khéls* or chief's families among the various tribes generally marry their daughters to members of their own septs, or to scions of families holding a smilar position in other tribes. Thus the Shamézai Lúni, and the Mazaráni Khétráns, who are *sardár khéls* in their respective tribes, do not give their daughters in marriage to their own tribesmen. The Kharshín and some of the Bukhári, Maudúdi and Chishti Saiads also unite their female offspring with members of their own septs.

Marriage ceremonies.

Among the well-to-do the bridegroom is generally about twenty years of age and the bride some four years his junior, whilst among the poorer classes both the bridegroom and the bride are, as a rule, older. Infant betrothals are of rare occurrence, and then usually between very near relatives. Ordinarily, a man is not consulted in the selection of his bride; the duty of negotiating a suitable alliance being undertaken by his parents. Before making any definite advances, it is customary to depute a female relative to visit the prospective bride and to satisfy herself as to the latter's personal appearance and other qualifications. Among the very poor, or when marriage takes place among the well-to-do at an advanced age, the man makes

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his own choice. The girl having been approved, the father of the bridegroom with some of his relatives (*marakka*) interviews the girl's father, and if the preliminary overtures are favourably received, the amount of *walwar*, the portion of it to be paid in cash and in kind, and the nature and value of the presents (*kor*) which the father will bestow upon his daughter at the wedding, are discussed and settled. A deduction on account of the value of presents is sometimes made from the amount of *walwar* and in such cases the parents make no presents to their daughter. When these preliminaries have been arranged, the *mullá* recites a prayer —*fâteha*—and congratulations are offered to the bridegroom's father. The girl's mother then presents the bridegroom's father with a handkerchief or the collar of the girl's dress and a needle in the eye of which a silk thread has been inserted. The bridegroom's father presents the bride with *zarûngae*, an ornament made of silver coins. This is the distinctive sign of maidenhood and is not removed until the woman becomes a mother. Guns are then fired. This, the preliminary step in the betrothal, is known as the *hokra* or *ghûsht*, and is considered binding. After it has taken place it is considered a want of good breeding on the man's part to repudiate the contract without a plausible excuse, and any one who does so is regarded with contempt. In the case of the woman the *hokra* is considered binding except under special circumstances. When a period of about a month has elapsed from the date of the preliminary betrothal, a party of the bridegroom's relations visits the bride's father and pays him a portion of the *walwar*. The bride's father presents the visitors with pouches of embroidered cloth which are used for keeping antimony and tobacco, and a portion of the *walwar*, originally fixed, is also remitted. This is the *kozda* or betrothal, and on this occasion also, there are general rejoicings, dancing, etc. After the *kozda* the bridegroom is permitted to visit the bride at her parent's house and to enjoy all the privileges of a husband.

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When the *walwar* has been paid in full, a date is fixed for the marriage (*nikáh* or *wáda*), when the bride is brought from her father's house, to her new home by a party of the bridegroom's relations and friends (*wra*), the marriage service (*nikáh*) being performed by a *mullá* in the bridegroom's house, within three days. Should the girl die before the *nikáh*, half the *walwar* paid is refunded. Besides the *walwar*, the bridegroom has to supply provisions (*khushai*) to the father of the girl for the entertainment of the wedding guests. Marriages are generally performed after the wheat harvest has been gathered in, but they are not celebrated during the month of *safar*, the first ten days of *muharram* and the period intervening between the two *ids*. In the case of remarriage of a widow no ceremonies except the *nikáh* are observed.

The ceremonies of marriage described above prevail among the Kákars of Bori, and, with a few local modifications, among other Afghán tribes in the District. The Jáfars, Kharshíns, Lúnis, Taríns and Dumars perform the *nikáh* in the bride's house, while the Músá Khéls, Isots and Zamarais follow the practice of the Sanzar Khél Kákars. Among the tribes in the Duki, Sanjáwi and Músá Khél tahsíls, the bride and bridegroom are not permitted to see or meet each other before the marriage.

Marriage ceremonies of Khétráns.

The marriage ceremonies of Khétráns are somewhat different. The Khétrán bridegroom generally wears red trousers on the day of marriage, and among the Chachas, until recently, the bridegroom was required to wear the marriage crown (*mukat*) and cut a branch of the *jandi* tree—ceremonies which are apparently the relics of Hindu customs. When a girl has been approved by the parents of the prospective bridegroom as a suitable match for their son, a menial such as a weaver, shoemaker or minstrel is sent to her parents or guardians to consult them. If they are agreeable, the father of the lad, together with a few of his relations, and a female of his household, interviews the girl's

parents, and arranges the terms, the chief points for consideration being the amount of *walwar* and whether the marriage will be *sariwar* (i.e., that the girl shall return to her parents in the event of her becoming a widow). Sweets are distributed to those present, and a gun fired. The lad's father presents a *poti* or wrapper to the bride and a rupee to be worn by her on the forehead, the well-to-do giving a gold *muhar* in lieu of a rupee and also a *poti* to her mother. The girl's father presents a *poti* to the female who accompanies the bridegroom's party. A part of the *walwar* fixed is, also paid. These ceremonies are a binding part of the betrothal. A week or so after the betrothal, the bride's parents send a *badni*—sheep skin embroidered with silk, and a gold or silver ring for the bridegroom. The marriage service or *nikáh* is performed at the bride's house, and when she is brought home, a sheep is killed. The heart of the sheep is cooked, and a *mullá* recites a charm over it, and it is then divided between the bride and the bridegroom. The rest of the meat is cooked, and seven women, who have been married only once and whose husbands are living, are invited to partake of the repast, at which the bride and bridegroom eat from the same plate. The bride and bridegroom are not permitted by custom to meet or see each other before marriage. The tribal sentiment about this custom is best illustrated by the tradition which prevails among the Khétráns regarding the graveyard—*kanián-wála-kabristán*—at Vitákri. It is said that in days gone by, some young girls were playing on the ground when the lads to whom they had been betrothed happened to come that way. The girls being unable to hide themselves prayed to God to shield them from their gaze. The ground opened and they all sank alive into it. Popular superstition has it that on Thursday nights the girls still emerge from the graves, to dance and sing. Should the girl die before the celebration of the *nikáh*, the portion of *walwar*, already paid, is not refunded.

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Bride price.

Except among the well-to-do Kharshín Saiads who marry within their own septs and do not demand any *walwar*, the amount and payment of *walwar* is the most important factor in all matrimonial arrangements. In pre-British days money was scarce and the bride price was low, varying from Rs. 25 to Rs. 100 for a virgin, and with the exception of the small amount required for ornaments, it was generally paid in sheep, goats, camels, cattle, grain and occasionally in land and water. Among the Shádozais, Spín, Taríns and Ustaránas of Duki no *walwar* was demanded. The present rate of *walwar* among the tribes in Bori is from Rs. 100 to Rs. 1.000; Músá Khéls Rs. 300 to Rs. 800; Gharshín Saiads Rs. 60 to Rs. 80; Duki tribes Rs. 200 to Rs. 800; Dumars Rs. 250 to Rs. 700; Khétráns Rs. 300 to Rs. 900. But the amount depends on the position of the bride's family, her personal qualities, and the paying capacity, age and social position of the suitor. Cases are known among the Mazaráni Khétráns in which as much as Rs. 3,000 have been paid. If a man wishes to marry above him or an old man wishes to marry a young girl, he has to pay a higher price than an ordinary suitor. The *walwar* paid for a widow or a divorced woman is generally half the amount paid for a virgin, but in exceptional cases when a widow is young and attractive, it is more. Dower, or *haq-i-mahr* (known as *káwín* among some of the tribes) is theoretically recognised, the amount varying in different tribes. It is usually small; in the Bori tahsíl it is Rs. 20 to Rs. 40; among Zarkúns of Duki Rs. 7 and among other tribes from Rs. 2-8-0 to Rs. 40; in Bárkhán Rs. 12; and in Músá Khél Rs. 2-8-0 to Rs. 12. A cow, or a couple of sheep, a few fruit trees or some ornaments are generally given in lieu of dower, and this is more particularly the custom among the tribes in Sanjáwi. Among most of the Afghán tribes the husband presents his wife, either in addition to, or in lieu of the *haq-i-mahr*, with a share, generally one-third, of the merit (*sawáb*) which he hopes to obtain after death by giving alms from his hearth (*angharai*) during his lifetime.

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System of exchange.

Mention may also be made of the system of exchange (*sarai, tsarai, patsarai, wata* or *watándra*) which is universal among the tribes. Under this system, if there is much difference between the ages of the girls, who are to be exchanged, one being marriageable and the other not, the parents of the younger generally have to pay an additional sum in cash, or give two minor girls for a marriageable one. Similarly when a widow is given in exchange for a virgin, the guardians of the former have to make an additional cash payment by way of compensation.

Peculiar systems.

In pre-British days a man of influence and power in the Bori, Sanjáwi and Duki tahsíls would kill a sheep, and throw its head into the house of the girl of whom he was enamoured, and give out that she was his, signifying that any one who would cut off his head could marry her. The *walwar* would ultimately be settled with her parents and the girl married to the man. This was called *ár*. Among Sanzar Khéls including Dumars, Zakhpéls and Utmán Khéls it sometimes happens that a marriageable girl leaves her parents or guardians and seeks protection under the roof of the man of her choice. In such cases too (known as *matézgai* or *tasht*) the *walwar* is arranged subsequently and paid to her parents, and the woman is then married.

Among the Khétráns a system locally known as the *sariwar* also prevails, under which a woman, when she becomes a widow, returns to her parents, and carries with her the presents made to her by the parents at her wedding. In this tribe when exchanges of girls are effected, the guardians of the minor girl agree to give hereafter a daughter born of the elder girl taken in marriage. This is called *arjai dosti*.

The marriage expenses and gifts.

The marriage expenses most of which fall on the bridegroom's party vary according to the position of the contracting parties from Rs. 50 to Rs. 500 excluding the *walwar*.

The bride's parents generally present her with a dress, and a few silver ornaments, bedding, and some articles of

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Divorce. The usual reasons for divorce are the disagreeable appearance or temper of the woman, immorality proved or suspected, or sometimes disease. Among the Kákars, a woman who refuses to work or proves to be incapable of performing her multifarious duties may also be divorced. The method of divorce is the throwing of three stones or clods of earth after the woman in the presence of two witnesses. The divorcée has the status of a widow and can remarry in her tribe, but if she is divorced for misconduct, she is not permitted by custom in some of the tribes to marry her seducer. Amongst the Dumars, Zakhpéls, Péchis and Sanzar Khéls of Bori, the Zarkúns and Tor Taríns of Duki and the Dumars of Sanjáwi, a woman can obtain a divorce if her husband is proved to be impotent. To effect this, pressure is brought to bear on the husband by her parents through the tribal headmen. Among many of the tribes, if a woman is divorced for her own fault, the husband claims compensation (*khulla*) from the man whom the divorcée marries. The amount is generally not more than half of the *walwar*, originally paid for her.

Penalties for adultery. Before the British occupation, among most of the tribes, death was the punishment of a faithless wife caught *flagrante delicto*. The Laharzai Músá Khéls cut off the nose of the woman, and made a cut on the forehead and wrists of the seducer. Among the Dumars, Zakhpéls and Wánéchis the adulteress's nose and ears were cut off, while among the Bél Khél Músá Khéls and Isots, the woman's nose and the man's foot were chopped off. The punishment

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of death still holds good theoretically, but, in practice, an injured husband is ready to salve his conscience with compensation in girls, money, cattle, land, etc., the amount payable varying in different tribes. No compensation is payable if both the seducer and the woman are killed. If both escape, the woman is divorced, and can marry her seducer, among all the tribes except the Khétráns and the Kharshín Saiads, on payment of compensation to the injured husband. This compensation varies, but the general rates prevalent at present are the following :—among the Músá Khéls and Isots Rs. 700; Jáfars Rs. 500; Kharshín Saiads Rs. 300 and a girl; Spín Taríns and Shádozais of Duki Rs. 700, one girl and one sword; Zarkúns Rs. 250 and two girls or Rs. 500 in all; Tor Taríns Rs. 400; Lúnis Rs. 400 and two girls, or Rs. 600 in all; Dumars, Zakhpéls and Péchis Rs. 600; Wanéchis Rs. 700; Sanzar Khéls from Rs. 600 to Rs. 1,200 and a fine of Rs. 100. When both parties are Khétráns, the compensation payable is Rs. 300; the woman is divorced and if married under the *sariwar* system returns to her parents, otherwise she is divorced by her husband and disposed of for *walwar* outside the group to which the husband belongs. When the woman belongs to Kharshín and the seducer is a Buzdár, the compensation payable is Rs. 800 and the woman also returns to the Kharshíns. If the woman belongs to a blacksmith, *hamsáyah* or a Saiad, the compensation is heavier. The Lúnis have different rates for various tribes, viz., with Marris, Zhobis and Hamzazais Rs. 600; with Zarkúns of Kohlu Rs. 300; with Dumars Rs. 300; and with the Taríns of Thal Rs. 400. When the woman is not married but is betrothed, the Lúnis charge, besides the compensation, damages (*sharmána*), and among Dumars, Zakhpéls, and Péchis, if the seducer cannot pay the full amount of compensation, he is made to pay *sharmána*, which in the case of a married woman is about Rs. 100 and in the case of a virgin about Rs. 30 and the woman remains with her husband or guardian.

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The status of woman and rights to property.

Except among well-to-do families of Mazaráni Khétráns, Shádozais, Lúnis, Bukhári Saiads and Taríns the position of the women is one of extreme degradation. No sooner is a girl fit for work than she is sent by her parents to tend the cattle, besides taking her part in all the ordinary household duties. Owing to the system of *walwar* in vogue, when she reaches nubile age, she is, for all practical purposes, put up for auction sale to the highest bidder. Her father discourses on her merits as a beauty, or as a housekeeper, in the public meeting-places, and invites offers from those who are in want of a wife. Even the more wealthy and more respectable Afgháns are not above this system of thus lauding the human wares, which they have for sale. In fact the more wealthy and influential the family of the bride, the larger the price offered for her hand. A wife is expected not only to carry water, prepare food and attend to all ordinary duties which include grinding corn, fetching fuel, sewing and washing clothes, and spinning wool, but she must take the flocks out to graze, groom her husband's horse and assist in the cultivation. With a few exceptions mentioned later, she has no rights in property, nor even to any presents given at her marriage, and, if divorced, she can only carry away with her the clothes she is wearing. As a widow, too, she is only entitled to a subsistence allowance from her late husband's estate.

In the household of a deceased Afghán, widows and girls are merely regarded as assets, in the division of his property, and though the system is severely discouraged by Political Officers, it is no uncommon thing to find that a son is willing to hand over his mother to an applicant for her hand on the receipt of the stipulated *walwar*.

In former days, a brother who did not wish to marry his brother's widow, could dispose of her in marriage to any one he chose, and appropriate the *walwar*, but an appreciable change has occurred in the position of such widows, since an important decision given by Mr. (Sir Hugh) Barnes, then Agent to the Governor-General, in November

1892, in the case of Lukmán Kákar *versus* the Crown. "As regards a widow's power of choosing a husband," Mr. Barnes said, "Muhammadan Law must not be over-ridden by local inhuman and ignorant custom, and, in all disputes regarding widow re-marriage brought before the Courts in British Baluchistán or the Agency Territories, the Courts of Law should follow the provisions of Muhammadan Law, in so far as that Law gives to widows full liberty and discretion to marry whom they please; and no case of the kind should be committed to a *jirga* for settlement without a clear direction that, on this point of the widow's freedom of choice, no curtailment whatever will be permitted of the liberty and discretion which Muhammadan Law allows her. The only point in which any concession to local tribal custom can be permitted is that which relates to the payment which should be made by the new husband to the late husband's family. * * * In order to put a stop to the feuds which might otherwise arise from allowing widows to marry whom they please, it is admissible for Courts to settle the sum of money which should be paid to the family of the widow's late husband by the man she proposes to marry. This is the point in the settlement of these cases, which may usefully be made over to a *jirga* for decision." This decision was re-affirmed by Sir James Browne in June 1895, in the case of Musammát Maryam, Yásínzai. The decision is not always followed by the tribesmen, but the women are gradually becoming aware that they can appeal to the Courts.

Amongst most of the tribes, including the Péchi, Kharshín and other Saiads, the women are allowed no share in inheritance; but the Spín and Tor Taríns, Ustaránas and Zarkúns of Duki allege that they follow the Muhammadan Law and allow women the share to which they are entitled by that Law. This share they can dispose of and take with them on their marriage, but a Zarkún woman does not possess alienable rights and the property reverts to her parental heirs on her marriage. Among the Sanzar Khéls of Bori a

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widow, so long as she does not marry, is permitted to hold one-eighth of her deceased husband's property both movable and immovable. A widow, among the Jáfars, on her remarriage takes with her the presents made by her parents at her wedding. The Khétrán custom permits written wills, bequeathing a share of immovable property in favour of women, and in such cases the women enjoy absolute control over the property thus bequeathed to them.

Inheritance among males is governed by tribal custom, but is based on the general principles of *shariat.*

Language.

Language, at the Census of 1901, was recorded only in the case of 4,248 persons who were censused on the standard schedule, but these were included in the old Thal Chotiáli and the Zhob Districts and separate figures as to the dialects spoken by these persons, who are chiefly aliens, are not available.

The language of the Courts is Urdu, and a modified form of it, originally introduced into the District by officials, who came in the early days of the British occupation from the Deráját, is making way among the indigenous population, more especially in the villages in the vicinity of Loralai town and cantonment.

The principal dialects spoken by the indigenous population are Pashtú, Khétráni and Baluchi. The medium of correspondence, except in the case of official documents, is Persian among Muhammadans, and *Lahanda* among the domiciled Hindus. But in Bori and Duki correspondence is sometimes carried on in Pashtú, the characters used being Persian.

Pashtú is spoken by all the Afgháns except Jáfars in all the tahsíls. The Wanéchi Spín Tarín of the Sanjáwi tahsíl use a modified form of Pashtú which is known as the Tarínáo. This dialect differs from the ordinary Pashtú of the Quetta-Pishín District, and, according to tradition, the progenitor of the Wanéchis quarrelled with his father who cursed him saying "*warza, pa zhabe de sok mapahézha,*" that is, "begone,

let no one understand thy tongue." Among the peculiar terms of Tarínáo may be included the following :— POPULATION.

English.	Pashtú.	Tarínáo.
Father ...	*plár* ...	*piár*
Wind ...	*bád* ...	*wáju*
Sun ...	*nimar* ...	*mér*
Bullock ...	*ghwae* ...	*lézhda*
Camel ...	*ush* ...	*wush*
Dog ...	*spai* ...	*spa*
Milk ...	*shodae* ...	*shwa*
Butter-milk ...	*shorambae* ...	*shamzi*
Clarified butter (ghí)...	*ghuri* ...	*runrah*
Turban ...	*pagrai* ...	*malas tanr*
Shirt ...	*kamís* ...	*rébún*

Khétráni, which is also known as *Barázai* and *Jáfar-aki*, and which has been classed by Dr. Grierson as a dialect of Lahanda, is spoken by the Khétráns and domiciled Hindus of the Bárkhán tahsíl and by the Kharshín Saiads and Jáfars of Músá Khél. This dialect greatly resembles the Jatki spoken in the Derá Ghází Khán District but has some peculiar terms of its own. Among these may be mentioned the following :— Khétráni.

Goat ...	... *chháli*
Sheep ...	... *phanu*
Lamb ...	... *mathar*
Path ...	.. *tar*
Food ...	... *kor*
Soup ...	... *raha*
Smoking pipe ...	... *doda*
Cooking pots ...	... *rachh*
4 anna piece ...	... *bitta*
red (colour) ...	... *lákha*

Baluchi, which is technically described as belonging to the Iranian branch of the Aryan sub-family of the Indo-European family, is spoken by the Baloch, who are found in the Músá Khél and the Bárkhán tahsíls. The dialect spoken Baluchi.

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is known as the eastern Baluchi, and the words in use for common objects and acts are nearly all pure Baluchi, the remainder of the language being borrowed from Persian, Sindi and Punjábi. Most of the Khétráns, Laharzai, Músá Khéls, and Jáfars, surrounded as they are by the Baloch, know the Baluchi dialect in addition to their own.

Races, tribes and castes.

The following statement shows the distribution by races and tribes of the indigenous inhabitants of the District:—

Afgháns	Kákar	18,419
	Panni	11,096
	Tarín	3,392
	Lúni	2,556
	Isot	1,952
	Zarkún	1,107
	Jáfar	1,026
	Ustarána	635
	Zamarai	531
	Shíráni	91
	Ghilzai	3,184
	Total	43,989
Saiads		2,262
Khétráns		13.586
Baloch	Buzdár	814
	Leghári	316
	Kaisráni	182
	Gurcháni	139
	Others	22
	Total	1,473
Jats and Bráhuis		12
	Grand Total	61,322

Afgháns, it will be seen, are by far the most numerous, comprising about 65 per cent of the total population of the District, and Khétráns and Saiads come next with 20 and 3 per cent respectively; the number of Baloch was 2 per cent of the total. The few Shíraní Afgháns (91—males 50, females 41) enumerated in 1901 were chiefly nomads and were scattered throughout the District, in the Bori tahsíl (22), Duki (22) and Músá Khél (47).

The number of non-indigenous inhabitants censused on the standard schedule is about 6 per cent of the total. Owing to the circumstances, under which the non-indigenous population comes to Baluchistán, either in Government or private service, or as traders, and the more or less temporary character of their sojourn, it will not be necessary to deal with them further in this section, which will be confined to a description of the chief indigenous tribes, and domiciled Hindus. OPULATION

Tribal constitution

The Baloch in the District are chiefly nomads, and most of them are still attached to their principal tribes. The Khétrán's tribal constitution resembles rather that of a Baloch than an Afghán tribe. They have a chief or *tumandár*, a headman or *wadéra* at the head of each clan, and a *motabar* for each section.

Before dealing with each Afghán tribe, it seems necessary to indicate what an Afghán tribe is. It must be borne in mind that it differs in certain respects, very materially from a Bráhui or Baloch tribe, but as the majority of the population in the District is Afghán, it is unnecessary to discuss the question in detail here. The subject is dealt with in the Baluchistán Census Report for 1901.

Theoretically, an Afghán tribe is constituted from a number of kindred groups of agnates. The groups comprising the tribe are divided into a multiplicity of sub-divisions, which it is almost impossible to follow, but for practical purposes four are in general use, the *kaum* or main body, the *khel* or *zai* representing both the clan—a group generally occupying a common locality, and the section—a group whose members live in close proximity to one another and probably hold common land, and lastly the *kahol*, a family group united by kinship. Affiliated with a good many tribes, however, are to be found a certain number of alien groups known as *wasli mindún* or *hamsáyah*. Some instances of these are given in the account of the tribes which follows. In these cases the test of kinship does not apply, and such

POPULATION. groups, families or individuals are united to the tribe by common good and common ill. In other words, common blood feud is the underlying principle uniting a tribe, but the conception merges into the fiction of common blood, i.e., connection by kinship. The Afgháns are not organised under a common leader, as is the case with the Baloch and Bráhui tribes, to whom the tribal officers such as *mukaddams*, *wadéras*, etc., are subordinate, but their more democratic spirit chooses a leading man in each minor group. Heredity is always an important factor among the Baloch, but with Afgháns there is frequent chopping and changing, the weak giving way before the strong and the apt before the inept. Hence individuality has far greater scope among Afgháns than among the Baloch, but the retention of influence, once acquired, frequently depends on exterior support, such as that of Government, rather than that of the tribesmen themselves.*

Kákars. The total number of Kákars in the District in 1901 was 18,419: males 9,962, females 8,457, the number of adult males being 5,931. They represent 41 per cent of the total number of Afgháns, and 30 per cent of the total indigenous population of the District. The Kákars are Ghurghusht Afgháns, their progenitor Kákar being a son of Dáni and grandson of Ghurghusht, son of Qais Abdur Rashíd. The principal clans represented in the District are the Sanzar Khél (18,079), Sargara (197), Sanatia (107) and others including Targara (36). The majority of the Sargaras (177) are found in the western part of the Bori tahsíl where they own lands in Dirgi Sargara. Their headman is Mullá Abdul Haq, son of Mullá Ahmad. The Sanatias are distributed over Bori (69), and Duki (38), where they work as tenants and labourers.

Sanzar Khéls. The Sanzar Khéls are descended from Sanzar or Sanjar, son of Sughruk and grandson of Kákar, and are also known by outsiders as the Saráns and Zhobis. Sanzar Nika was

* *Census of India* (1901), Vol. V and V-A., Chapter VIII.

regarded as a saint, and many stories are told in confirmation of this belief. According to local tradition, Sanzar was a posthumous son of Sughruk by a Saiad wife named Lazgi who after her husband's death returned to her own home in the Lúni country where Sanzar was born. When he came of age, he was taunted by his companions with the fact that his father was unknown, whereupon his mother gave him his father's signet ring and told him who he was. Sanzar then came to Hindubágh. Here the Mughal governor, Míro, conspired to kill him, but he miraculously made his escape, destroyed the Khánki fort and married Míro's daughter by whom he had twelve sons.*

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In the course of the Census of 1901, there seems to have been a misapprehension as to the constitution of the Sanzar Khéls and they were divided into thirty-two sections, but all local authorities distribute them in twelve sections. They have, however, affiliated other groups also, known as *waslis*, and among these may be mentioned the Yadána, a branch of the Kudézai; Kádar, descendants of a slave, who are now included among the Utmán Khél; and Tarézai Arab Khéls. The principal sections of the Sanzar Khéls are known after the twelve sons of Sanzar—Alízai, Abdullazai, Kibzai, Huramzai, Utmán Khél, Nas Khél, Barat Khél, Arab Khél or Arabi Khél, Parézún, Taimáni, Nisai and Hindu Sanzar Khéls. Of these, the Parézúns migrated to the Pishín tahsíl of the Quetta-Pishín District; the Hindu Sanzar Khéls are in Shikárpur in Sind; the Taimáni reside in the Siáhband mountains in Herát territory where they have amalgamated with Chár Aimaq. The majority of the Abdullazai, Barat Khél, Nas Khél and a few Nisai are to be found in the Zhob District.

It is alleged that when Sanzar began to divide the country among his twelve sons; he agreed to give Bori, the most fertile valley which extends from Uryági to Mékhtar, to the one who showed great prowess; and with this object a knife

* Note by R. S. Diwán Jamiat Rai published in the *Journal of the Asiatic Society of Bengal*, Vol. LXXII, Part III, No. 2 of 1903.

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was stuck in the ground, and each son was asked to strike it with the palm of his hand. Arabi came forward, struck it with such force that his palm was pierced through and he thus won Bori. Arabi had two sons, Umar and Hamza; the former was a weak man and his descendants are called after his wife Maryam Khél, while Hamza's descendants are known as Hamzazai. The Utmán Khéls who live in the western part of the Bori tahsíl are said to have received their present possessions from the Dumars. The principal sections of the Sanzar Khéls in the Loralai District are the Alízai (2,847), Kibzai (2,028), Utmán Khél (1,624), Arabi Khél 5,709 (including 3,359 Hamzazais), and 5,270 Dumars (including 699 Zakhpéls). Most of them are to be met with in the Bori tahsíl, which has also 140 Barat Khél, 125 Abdullazai, and 138 Nas Khél. The Duki tahsíl has 508 Alízai, 49 Abdullazai, 946 Kibzai, 58 Utmán Khél, 304 Arabi Khél and 155 Dumars. Each of these sections is divided into numerous sub-sections. The leading men among the Sanzar Khéls of Bori are K. S. Azam Khán, who belongs to Rahím Kahol, Khalúnzai, Zínakzai Khudézai, Arab Khél; Firoz Khán, Zahro Kahol, Mírakzai, Shamzai, Hamzazai; Saido Hamzazai, Dewána, and Kála Khán, Sabzal Kahol, Shahbazai, Utmán Khél.

Dumars.

Though Dumars are included among the Sanzar Khéls, their claim to a direct descent is questioned. Some of the Sanzar Khéls allege that Dum, the progenitor of the Dumars, was a slave of Sanzar while the Dumars themselves say that Dum was the son of Sanzar by a Shíráni widow. The Dumars number 5,270: males 2,789, females 2,481, the number of adult males being 1,698. They are distributed over Bori (864), Sanjáwi (4,251) and Duki (155). Their principal sections are the Shabozai, Nathozai, Umarzai and Zakhpél, and their headman in Sanjáwi is Páyo Khán, son of Sardár Muhammad Gul Bábozai, who died in July 1890. Páyo Khán, who was a minor at the time, succeeded his father in 1895. He is in receipt of a monthly allowance of Rs. 45

from the Levy Service, and also receives Rs. 132-4-8 per annum in lieu of a grain allowance of 50 maunds formerly paid to him. The other important men among the Dumars are Malik Muhammad Sidík, Bábozai, and Malik Allahdád, Sultánzai-Nathozai; and the leading man among the Bori Dumars is Rindo, son of Abdal. The Dumars are agriculturists, but are said to be indifferent cultivators and some sections are largely dependent on their flocks. POPULATION

Zakhpéls. The Zakhpéls though now affiliated with the Dumars deny, any direct connection with them, and claim a Saiad descent. According to their own accounts they are descended from Saiad Manro. They are regarded as Sheikhs; and the Pékai section among them is much respected on account of the efficacy of their amulets and charms. The Zakhpéls number 699 (males 356, females 343), of whom 692 are in the western circle of the Bori tahsíl. It, however, appears that those residing in Ghunz and other villages in Púi were classed as Dumars in the Census records of 1901.

They are agriculturists and flock owners, and their headmen are Mauládád, son of Sangín, and Yakúb, son of Mehrbán.

Shádozai. The Shádozais of the Duki tahsíl, though originally Kibzai Kákars, have now practically no connection with their parent stock, and follow the customs of the Taríns among whom they live. Shádo, the progenitor of the Shádozais, with a minor brother and his mother came from Zhob to Thal, and engaged himself as a shepherd to a Lasiáni-Tarín family. When Pír Abdul Hakím, *alias* Nána Sáhib, was displeased with the Taríns, Shádo entertained the Pír to the best of his capacity, whereupon the Pír blessed him, and his progeny prospered. Shádo married a Tarín wife by whom he had four sons—Shér Khán, Karam Khán, Háji Khán and Nasír Khán, and by a second wife had four more sons—Shahbáz Khán, Adam Khán, Muhammad Khán and Mato Khán. The Shádozai now own the whole of the Thal stream, and are in a prosperous condition. The well-to-do among

POPULATION. them generally employ tenants. They are not on very good terms with the Taríns. The leading men among the Shádozais are Tor Khán and his son Baloch Khán, Umar Khán and Izat Khán.

Characteristics of Kákars. Anthropometrical measurements, which were made of the Kákars in the Quetta-Pishín District for the Census of 1901, showed that they had broad heads, fine to medium noses, and that their stature was either above the mean or tall. The following were the average measurements* of those examined:—

Average Cephalic index	81·9
Average Nasal index	69·6
Average stature	168·3 c.m.
Average Orbito-nasal index ...	116·6

The tribe, on the whole, has been peaceful since the British occupation, though in the early days they gave some trouble. Their main occupation is agriculture, but some, more especially among the Dumars, combine flock-owning with it. The Kákars have a poor reputation for bravery among other Patháns, though they can be troublesome at times; and the standard of morality of the poor is rather low. A local proverb says "whenever you see a Kákar, hit that Kákar with a stick, expel him from the mosque and you will see no mischief." Their dirty personal habits are alluded to in another proverb, which speaks of them as "besmeared with filth." The Masézai section of Dumars are considered misers and the Haidarzai Dumars are notorious for their immoral propensities.

Pannis. The Panris or Pannis were originally a nomad tribe of Ghurghusht Afgháns. The Sáfis, a branch of the tribe, are still found in considerable numbers near Ghazni, and another large section, now known as the Gadúns, reside in the Peshawar District to the east of the Yúsufzai country. The branch with which Baluchistán is concerned appears to have wandered from west to the Sulaimán hills and from thence

*See *Census of India*, 1901, Vol. I, Ethnographical Appendices, an explanation of the method of measurement will be found at page 6 *et seq* of the Report.

to have spread gradually to the south, the Músá Khéls and Isots remaining in the country now known as the Músá Khél tahsíl. Another section found their way into Sángán from the Bolán Pass, and gradually acquired Bádra, Quat-Mandai and Sibi. Eventually they got possession of, or were perhaps nominated by the rulers of Kandahár to administer Bárkhán and the lands now held by the Marris. The descendants of Pannis are also found in Southern India, where, from time to time, they have made a considerable figure in Indian history. Prior to the downfall of the house of Bábar, one of the celebrated free lances of the period was Dáúd Khán, a Panni, who was remarkable for his generosity and liberality which has passed into the proverb "*bani ta bani nahin ta Dáúd Khán Panni*," that is to say if the worse come to the worst, there is still Dáúd Khán to fall back upon.

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The Pannis in the District are represented by the Músá Khéls and Isots, and though their classification is ethnically correct, they are now separate tribes for all practical purposes, being separated from the Pannis of Sibi by a wide belt of country.

In 1901 the total number of Pannis in the District, excluding the Isots which have been separately mentioned, was 11,096—males 5,890, females 5,206, the number of adult males being 3,474. They comprised 275 Ali Khél (159 in Bori, 116 in Músá Khél), 280 Marghazáni (all in Músá Khél), and 10,525 Músá Khéls (5,578 males, and 4,947 females). The Alí Khéls of the Bori tahsíl are chiefly nomads, but some of them have settled in Tojgi and Kachhi Alízai. The Músá Khéls are divided into two main clans, the Bél Khél (7,782) and the Laharzai (2,684), each clan being again sub-divided into various sections. The leading men among them are Mehráb Khán, son of Jamál Khán, Alu Khán, Mangézai-Laharzai, and Mauladád Khán, Hamzazai-Bél Khél. The Músá Khéls too have not been free from alien admixture; for instance, the Mangézai among the Laharzai are considered to be *minduns* or foundlings.

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Músá Khéls are, for Patháns, remarkably non-aggressive, both in their relations with Government and with their neighbours. Originally they were altogether pastoral and even now they have very few permanent habitations and, the Laharzai especially, supplement their resources considerably from the produce of their flocks.

In March 1879, encouraged probably by the success of the Mahsúd Wazírs at Tánk on the 1st of January, the Músá Khéls, Zamarais, Isots, etc., assembled under their leader Sanjar Khán, a force of some 5,000 men with the intention of attacking and plundering Vihowa. Owing to the energetic measures taken by the Deputy Commissioner, Déra Ghází Khán, Mr. H. B. Beckett, and the prompt appearance at Vihowa of a detachment of troops from Déra Ismáíl Khán, the Músá Khéls dispersed. Before dispersing, however, they turned to the Buzdár country and did considerable damage there. For many years the Músá Khéls were incessantly plundered by the Hadiáni-Legháris, Durkánis and Lásháris. In March 1883 Mr. (Sir Fred.) Fryer, Deputy Commissioner of Déra Ghází Khán, who was accompanied by the leading Baloch Sardárs of the District, including Sardár Muhammad Khán Leghári, and Nawáb (Sir) Imám Bakhsh Khán, Mazári, took advantage of a visit made by him to Chamálang to settle matters between the Músá Khéls, Hadiánis and Durkánis, and his efforts were successful. The terms of the peace which was concluded on the 30th of March 1883, briefly were, that, with the exception of the return of a few plundered articles, to which each side attached a special value, all bygones should be bygones. Peace was at the same time concluded between the Músá Khéls and Mírzai (Zamarai) Afgháns, and the Hadiáni and Durkáni Baloch. In 1884 an expedition was led against the Kákars of Zhob, to which a reference has been made under **History**. On its termination the Kákars and the Músá Khéls submitted to Government. On the creation of the Zhob Agency in 1890 the Músá Khéls were included in it.

POPULATION. Taríns.

The Taríns are Saraban-Afgháns, the descendants of Tarín, son of Sharaf-ud-dín, son of Ibráhím, son of Qais Abdur Rashíd. According to tradition, Tarín had four sons—Spín Tarín, Tor Tarín, Zhar Tarín and Bor Tarín. The term Abdál, however, gradually superseded that of Bor Tarín and came into special prominence when Ahmad Sháh Abdáli, commonly known as Durráni, began his career of conquest. It is still used, though sparingly, for the Achakzais, who have become localised in the Quetta-Pishín District, and are regarded as a separate political unit from the rest of the Taríns. This is also the case with the Tor and Spín Taríns, who, so far as common good and ill is concerned, have no connection with the Achakzais or with one another. The Taríns in the District are represented by the Spín clan (2,738) and Tor clan (556) and there were (1901) 22 Abdáls and 76 others "not specified."

Spín Taríns.

The Spín Taríns were originally settled in Pishín, but leaving their home they migrated southwards to the Sháhrig tahsíl of the Sibi District, and the Sanjáwi and Duki tahsíls of the Loralai District. In 1901 they numbered 2,738 (males 1,407, females 1,331) in the District, of whom only 7 were in the Bori tahsíl and the remainder were distributed over Sanjáwi (1,380) and Duki (1,351). The principal sections in the Sanjáwi tahsíl are the Wanéchis, who occupy parts of Wani, Chautér and Shírín valleys, and their leading man is Khán Sáhib Nawáb Khán, and 174 of the Wanéchis are in the Duki tahsíl where they have also acquired land. The principal sections of the Spín Taríns in the Duki tahsíl are the Lasiáni (356), Marpáni (267), Semáni (192), Adwáni (180) and Sáam (118). They own the dry crop lands in Thal. The Brémáni branch among the Lasiáni and the Adwáni among the Musiáni have been considered as the *sardár khél.* In pre-British days they levied certain import duties from Hindus who traded in the country. The leading men among them are Ismáíl Khán, Lasiáni, and his son Bangul Khán; Nasír Khán, Jámáni (Chotiwál); Góman Khán, Lasiáni, and Muhammad Khán Marpáni.

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According to local tradition the Taríns are descended from Rais, the progenitor of the Raisánis. From their home in the Sulaimán mountains they came to Mastung, thence to Kowás valley, and thence the Wanéchi, the Lasiáni and Musiáni wandered to Smállan and Thal to graze their flocks. The leaders of the band that came to Duki were Liás, Músá, and Jám. They divided the country, which was then waste, amongst themselves by lot, the Thal stream fell to the Lasiáni and Musiáni; Duki to Nisái; Anambár, Kola Kan and Chotiáli to the Jámáni; and the villages of Lasiáni, Duki and Chotiáli were established. In the time of Ahmad Sháh Abdáli, the assessment on irrigated lands was heavy, and the Taríns sold the Thal stream to Shahbáz Khán, one of the sons of Shádo, Kibzai, and the Taríns of Chotiáli sold portions of the Anambár water to Shér Khán, son of Ali Khán and grandson of Shádo Khán.

Tarín-Shádozai drinking water case.

The Taríns living at Marpáni Shahr, Ismail Shahr and Gáman Shahr in Thal in the Duki tahsíl have long been in difficulties for drinking water. Practically all the permanent water from the Duki stream belongs to the Shádozais, while the Taríns, of the villages mentioned, have no water except what they can get from the bed of the Thal Rod which is near their villages. When the water in this Rod dries up they have to get their water from the Shádozai *viála.** The Taríns claimed that they had a right to this drinking water while the Shádozais insisted that they had no right but could only take the water as a favour. The local officers made many attempts to settle the case amicably but without success. In 1899 the case was referred to the Sibi *jirga* and a decision was given that the Shádozais should give drinking water to the Taríns four times a year at intervals of three months at the rate of two *shabanaroz* a time: that the Taríns had no right to this water which was given to them as a favour, and that the decision was to remain in force till such time as the Taríns could get water

* *Viála*, a water channel.

of their own. It was evident that this decision did not form a final settlement of the case and disputes continued. Meanwhile the Taríns obtained a *takávi* advance from Government and bought the Tarkhán Chína Kárez near the Duki tahsíl, and asked to be allowed to take this water to Ismail Shahr by the Shádozai *Kálapáni** *viála*. The matter was referred to the Gumbaz *jirga* of 1905, but no decision which could finally settle the case was given; and after further attempts to decide the case to the satisfaction of the parties had failed, the Political Agent, Mr. Davis, made a decision which was as follows:—That the Taríns should be allowed to take the Tarkhán Chína water to Ismail Shahr in the Shádozai *viála* and that in return for this the Taríns should give the Shádozais a *viála* of flood water from the Thal Rod for the purpose of irrigating the Lah lands. Measurements were to be made for the purpose of ascertaining how much water the Taríns would be allowed to take from a point in the Shádozai *viála* nearest to Ismail Shahr. The Shádozais appealed against the Political Agent's decision, but their appeal has been rejected by the Hon'ble the Agent to the Governor-General and it now remains to carry the decision into effect (1906). POPULATION.

Tor Taríns. Tor Tarín is credited by local tradition with having had a son, Babo, who in turn had two sons, Ali and Hárún. The descendants of Ali are now known as the Alízai, whilst those of Hárún are divided into five principal sections found in the Pishín tahsíl. The hereditary governorship of Pishín under the Afgháns long rested with the Batézai branch of the Abúbakar sub-section of the Hárúnzais, and as a consequence the Batézais of Pishín claim social superiority among their fellows. According to local accounts the Umarzai Taríns came from Pishín to Smállan where the Wanéchis gave them the Shinléz lands. They could not hold their own against the Spín Taríns, and proceeded to Duki, which place they took by force from the Nisái-Spín Taríns who had to fly to

* A channel of perennial water.

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Chotiáli. They were in Duki in 1125 H. (1713 A.D.) when Bahádur Sháh, son of Aurangzéb, appointed Muhammad Gul as *kalántar* or elder. In pre-British days the *kalántar* levied a tax of Rs. 3 per annum from each Hindu shop, import duties on fruit in kind, and on cloth, etc., at rates varying from annas 10 per donkey load to Rs. 2-8-0 per camel load. On marriages Rs. 15 were paid to him, this tax being known as *jhajri*.

In 1901, the Tor Taríns in the District numbered 556 (males 282, females 274) and consisted of 540 Alízai, and 16 Makhiáni; almost all being in the Duki tahsíl, chiefly in the Duki and Habíb Kila villages. The Alízais are represented by the Umarzai section in Duki, and are again divided into four branches—Malézai, Muhammadzai, Bahlolzai and Hanzarzai; and have also affiliated with them the Gulfarz (or Bulfarz), a branch of the Isots. At the time of their early advent into Duki, the headman belonged to the Shérozai branch of the Malézais, but a few years before the occupation of the country by the British Government Kamál Khán, Hanzarzai, proved himself a man of power and influence and was recognised as a leading man. The present headmen are Ináyat Khán, son of Nazar Khán, Shérozai, and Mír Khán, son of Kala Khán and nephew of Kamál Khán, Hanzarzai.

Characteristics.

The Tarins are anything but a fine looking race resembling Baloch rather than Afgháns. The Umarzais, however, had a great reputation for bravery, and although few in number they held their own against their neighbours. They were constantly at feud with the Dumars of Bagháo, owing to the interference of the latter with the stream of water which irrigates the Duki lands and which rises in Bagháo. These quarrels have now ceased. They are almost all agriculturists. Some of the Lasiáni, Marpáni, Adwáni, Semáni and Malgaráni-Spín Tarins import coarse cloth from Jhang and shoes from Multán and export hides to these Districts. A few of the Tor Tarins are engaged in the cloth trade in

Calcutta and Bardwán. Most of the Semánis and Malgaránis work as tenants. POPULATION

Lúnis. The Lúnis, in 1901, in the District numbered 2,556;—males 1,309, females 1,247, the number of adult males being 787. Of the total, 2,474 are in the Duki tahsíl, chiefly in the Lúni and Lákhi circles, and the remaining are scattered in the Bori (66), Músá Khél (10) and Bárkhán (6) tahsíls. The main divisions of the tribe are Drugzai (949), Paláo (561), and Rakhanwál (903); and 143 miscellaneous.

The Lúnis are descended from Miáni and are, therefore, connected with the Jáfars of the Músá Khél tahsíl. They designate themselves Durránis, the reason for which may be found in the fact that Miáni was a brother of Tarín, the ancestor of the Durránis. Living near the Baloch, and being constantly at feud with them, the Lúnis appear to have adopted the arbitrary distribution of their component groups into large clans or divisions, which is common among the former. The tribe was, therefore, divided into the three main clans—Drigzai or Drugzai, Paláo and Rakhanwál. The Patozai who are Kákars and the Laths who are probably descended from another brother of Lúni, Latz by name,* are alien. Besides these it is alleged that the Ghoráni and Shudiáni sections are also aliens (*waslis*) while Mírzai-Drugzais claim a Saiad descent and are treated with respect by the Lúnis.

According to local accounts the Lúnis are descended from Laun, Durráni. Originally they were a pastoral tribe and used to come down from Khurásán to graze their flocks in Bagháo, Rarkan, Kingri, etc., returning to Khurásán for the summer. The eldest son of Laun was Shamé, from whom are descended the Shamézais (169) who are the *sardár khél* or chief's family. After Shamé, the chiefs of the tribe were successively Ababakar, Hátang and Haidar. In the time of Gházi Khán, son of Haidar, a few of the Lúnis remained behind in Rarkan, while in the time of his son and

* *Census Report* (1901), Vol. V, V-A, page 92.

POPULATION. successor Muhammad Khán, the migration back to Khurásán entirely ceased. Muhammad Khán founded the village of Kot Khán Muhammad in Kingri. Muhammad Khán had seven sons, of whom Dost Muhammad migrated to Déra Gházi Khán, and Pérag Khán commenced cultivation in Rarkan, Rara Sham, etc. The Lúnis came into collision with the Músá Khéls at Hazárgat on the Lúni river, and in one of the fights 400 Lúnis were killed when the remainder moved to Chamálang and Nath-ki-chap. Pérag Khán had two sons—Jalál Khán and Páind Khán—and on the former's death Páind Khán became the chief as Samundar Khán, son of Jalál Khán, was a weak man. Páind Khán collected a force of 800 men, and attacked some Marris who were living with the Khétráns. Bábul Khán, Khétrán, claimed the restoration of the property looted, but the Lúnis declined to give it up. In the fighting which ensued the Lúnis were at first successful, but the Khétráns and Marris at length collected in such force that the Lúnis were obliged to retire towards Lákhi.

Páind Khán was succeeded by Samundar Khán, and on the latter's death in 1893 Sardár Nawáb Khán became the chief and was given the title of "Khán Bahadur" in 1900. He has abandoned Dewána Shahr (also known as Samundar Khán Shahr) and has now settled in Dháki. His lands in Lákhi are revenue-free for life, and he and his brother Mír Khán enjoy an annual allowance of 1,050 maunds of grain which was converted into cash (Rs. 2,625) in April 1900. Another man of importance among the Lúnis is Makho Khán, Shamézai.

The Lúnis have gradually extended their possessions by purchase, and now own several villages in the Lúni and Lákhi circles.

It was in the year 1873 that the headmen of the Lunis met Captain (the late Sir Robert) Sandeman and asked him to procure for them the service which they formerly held under the Sikh Government for the protection of the trade

route to India. A brigade of troops marched through their country in 1880, and Samundar Khan, with a party of sowars, accompanied them as far as Girda Kach and did excellent service. POPULATION

The Lúnis are excellent soldiers and fine men. On grand occasions they make a great show of men in armour and of horsemen with tasselled spears. They are not on good terms with the Marris.

The majority of the Lúnis are now engaged in agriculture, but some of them such as the Waliáni, Marúfzai, Mírzaí, Lado and Kata Khél also combine flock-owning with it. Among their compatriots the Lúnis are considered ignorant people and a local proverb compares them with an ox.

Isots.

The Isots belong to the Ghurghusht division of the Afgháns, their common ancestor, Isot, being described as a son of Panni, who was a brother of Kákar.

In 1901, the number of Isots in the Músá Khél tahsíl of the Loralai District was 1,941—males 1,044, females 897, the number of adult males being 593. They are divided into nine sections, the Nuhzai (726), Muhammadzai (310), Bulfarz (194), Morézai (294), Isázai (45), Umarzai (142), Gháibzai (130), Khidarzai (46) and Néknámzai (52). They occupy the hilly country in the east of the tahsíl, adjoining the Punjáb border. They obtained the Zor Zabri lands from the Músá Khéls as a reward for helping them against the Kibzais. Two of the sections, viz., the Bulfarz and the Néknámzai are said not to be connected by blood with the Isot, though participating in good and ill with them. The Bulfarz are known locally as Ghwatai, and are descendants of Miáni of the Saraban division of the Afgháns, whilst the Néknámzais are probably the descendants of a Dáwi saint called Neknám. A few families of the Bulfarz have migrated and settled at Duki, where they are known as Gulfard and have become affiliated with the Umarzai Taríns.

The Isots are essentially a nomadic race, possessing no towns or villages, and are quiet and inoffensive. They wear

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clothes of the Baloch fashion; the men always dress in white and the women in black. The leading men among the Isots are (1905) Malik Mánu Khán and Malik Runa Khán.

Zarkúns.

In the Census Report of 1901, Mr. Hughes Buller said that "the Zarkúns claim connection with the Pannis, but there origin is doubtful. Owing to the raids to which the tribe was constantly exposed through its proximity to the Baloch, it is probable that the nucleus of the tribe imitated the latter's example and affiliated to itself a number of the alien elements. Thus a few Khajaks, who are Pannis, are recorded in the Ghunji clan, whilst Sharawan, the name of another, would appear to indicate that the nucleus of the clan consisted of Afgháns of the Saraban division, a word easily converted by an Afghán into Sharawan." *

In 1901, the Zarkúns in the District numbered 1,107—males 579, females 528, the number of adult males being 365. Of the total, 12 are in the Bárkhán and 1,095 in the Duki tahsíl. According to the Census records they are divided into ten sections, the strongest being the Pírozáni (426) and Ghunji (344). The Zarkúns in the Duki tahsíl are known as the *karkani* (to distinguish them from their brethren in Kohlu) and they are chiefly found in Wárézai, Hosri, Palos, Khalíl Chína and Sinao. A few families have also acquired land in Duki and Habíb Kila. Their leading man (1905) is Rasad Khán of Hosri.

Jáfars.

According to the genealogists, the nucleus of the Jáfars is descended from Miáni, the brother of Tarín, Shírani and Baréch. The Miáni or Miánai still constitute a large tribe which is scattered about from Kandahár to Kohát. The Jáfars, however, appear to have assimilated a number of outside elements, as the frequent use of the Baloch suffix *áni* among their sections indicates.

In 1901, the Jáfars in the Músá Khél tahsíl of the District numbered 1,026—males 546, females 480, the number of adult males being 346. They are divided into two clans, the Khid-

* *Census of India*, Vol. V and V-A (1901), Chapter VIII, page 94.

ráni (646) and the Umráni (380); the leading man of the former is Sardár Kálu Khán and of the latter Sardar Ahmad Khán. They own lands in Drug, Zárni, Sara Dirga, Karkana, Riára, Gabar Gurgogi and Nath close to the border of the Déra Gházi Khán District. A few families of Jáfars are settled in the Shádozai villages in the Duki tahsíl where they are known as the Shakún, but they have become merged into the Shádozais. POPULATION.

The Jáfars are a weak and inoffensive tribe, powerless to injure their powerful neighbours. They, however, enjoyed immunity from the Buzdárs, owing to the fact that the founder of the Taunsa shrine, whose disciples muster strong among the more influential Buzdárs, was of Jáfar parentage. Mr. (Sir Fred.) Fryer, Deputy Commissioner of Déra Ghází Khán, said in 1876: "The Jáfars though industrious and well conducted are a spiritless and unwarlike race. Were it not for the spiritual influence of the guardian of the Taunsa shrine (himself a Jáfar) over the neighbouring tribes, they would long ago have lost the remnant still remaining of their once large possessions. As it is their resources are subject to a constant drain from the shameless mendicity of the Pathán and Baloch who surround them and beg for alms with the audacity of superior strength."

The Jáfars were, formerly, famous for their liberal hospitality, which is illustrated by a local proverb, to the effect that the day of judgment (*kiámat*) will come when the Jáfars would cease to be hospitable.

In 1901, the total number of Ustránas in the District was 635—males 351, females 284, the number of adult males being 217. Of the total, 515 (males 281, females 234) were in the Duki tahsíl, 114 in the Músá Khél tahsíl and 6 in the Bárkhán tahsíl. In the latter tahsíl they are chiefly nomads. They are divided into various sections, Masézai (176) being numerically the strongest. About five generations back, when Shér Khán, Shádozai, established a new village on the Anambár, he got some Ustránas, who had migrated from Zhob, to settle in it and he gave them dry lands to cultivate on payment of *haq-i-topa* or rent. They subsequently Ustránas.

POPULATION.

acquired land and water in Shahbáz Chína, Sado Chína, Sawar Chína, Ghazi Chína, Palos Khurd, Paliáni, Habíb Kila and Duki. Though classed as Afgháns they claim a Saiad descent. According to Masson they are descended from a Saiad* who settled among the Shíráni Afgháns and married a Shíráni woman. They are a fine, manly race, stout, hardy, well behaved and peaceably inclined, they are good swordsmen, and also good cultivators. Their present (1905) leading men in the Duki tahsíl are Ali Ján and Palia.

The Ustránas are among the best cultivators in the Duki tahsíl. The Masézai and Dabzai sections deal in cloth and shoes and the Umar Khéls import cattle from Sind.

Zamarais.

The Zamarais, who are known as Mizris by their Baloch neighbours, are descended from Miáni, and are, therefore, connected with the Lúnis and Jáfars. A few of them under the name of Mizris are to be found among the Pannis of Sibi. A curious tradition prevails among the Zamarais themselves according to which their progenitor once temporarily adopted the form of a *zamarai* (lion in Pashtú) and hence the name They are a limited tribe, but have a good reputation for bravery. They are not so powerful as the Ustránas with whom they have had frequent feuds. In 1901, the Zamarais in the Músá Khél tahsíl of the District numbered 531 (males 318, females 213). They are divided into two sections—Ismáíl Khél (508) and Muhammad Khél (23)—and their headman is Hakím Khán. They own lands in Ramak, Raghzi and Guzi Zamarai and are engaged in agriculture.

Ghilzais.

The total number of Ghilzais enumerated in the District in 1901 was 3,184—males 1,854, females 1,330, the number of adult males being 1,248. Of these, 1,055 were in Bori, 1,400 in Duki, 671 in Músá Khél, 24 in Sanjáwi and 34 in Bárkhán. The strength of the various clans enumerated is shown in the margin.

Násar ...	...	1,696
Kharot ...	...	436
Malla Khél	...	225
Tarak ...	...	191
Sulaimán Khél	...	163
Shinwár	...	163
Hotak ...	...	90
Andar ...	...	62
Tokhi ...	...	39
Others ...	...	119

* Saiad Muhammad-i-Gesu Daráz, a native of Ush near Baghdád.

The Ghilzais are not an indigenous tribe, but a few have permanently settled in the District and acquired landed property. Among these are included the Afghán refugees, who have been mentioned at the end of the section on **Population**. Their most important headman is Sardár Muhammad Sháh Khán, Hotak. Násar settlers are also found in Kach Sardár, Chapli and Dabri in the Bori tahsíl; at Tor Wám, and Zhar Kila in the Sanjáwi tahsíl; and Khádam, Kharot purchased, in 1896, Banhar land from the Sharnézai-Lúnis for Rs. 1,000. A few others have also settled in Taláo Dámán, Bézawar and Saádat Shahr in Duki. The rest of the Ghilzais are either nomads, who visit the District periodically to graze their flocks, and to engage in the carrying trade, or labourers and *káréz* diggers who come during the winter and return to the Afghán highlands in the spring. POPULATION

The Malla Khél, Shinwár, Kharot and such of the Násars as own flocks, enter the Bori tahsíl in November by Marra Tangi, Tor Khézi, Kohár and Chinjan. Some move on to Kingri and Khajúri in Músá Khél, and others to Duki. Here they graze their flocks, deal in wool, *ghí* and dry fruit returning to Khurásán in March. Some of the Kharot who live in Tor Khézi sell fuel.

The Kamal Khél, Ya Khél, Masézai, Malézai, Salákzai, Bori Khél, Súr Nasa and Bano Khél return from Déra Gházi Khán *dámán* in April, the Ya Khél and Bori Khél pass on to the Pishín tahsíl, the Malézai and Salákzai sell fuel and milk in Loralai, while others encamp near Sharan Alízai, Saghri, Sháh Káréz, Mahwál, Katoi and Dabri in the Bori valley and trade in wool and engage in transport between Loralai, Fort Sandeman, Kila Saifulla, Harnai, Duki, Bárkhán and Spíntangi. They also retail wooden plates, *kásas* and cheap zinc ornaments which they bring from Déra Gházi Khán, and export wool and pomegranates.

The Ghilzai nomads, while encamped in the District, generally live in separate settlements (*kiris*), but sometimes

POPULATION. enter into marriage relations with local Afgháns. In 1900 Sharbat Khán, Shádozai of Dost Ali Shahr, married a Násar girl and paid Rs. 500 as *walwar*, and had a son by her in 1902. Sharbat himself belongs to a dwarf family, his stature being below 3 feet, while that of his bride was 5′ 6″. He had five sisters, of whom three are of his size and have remained unmarried, while the other two were of middle size and have been married.

The Ghilzais are a remarkably fine race of men, being unsurpassed by other Afgháns in stature and strength. They also differ from other Afgháns in their greater intelligence, adaptability and perseverance and they are also most enterprising traders.

Saiads. In 1901, the Saiads in the District numbered 2,262—males 1,197, females 1,065, the number of adult males being 740. Of this total, 1,044 live in Sanjáwi, 509 in Duki, 335 in Bori, 271 in Músá Khél and 103 in Bárkhán. This number does not include Zakhpéls who are included among Dumar Kákars and the Sheikhs in the Bárkhán tahsíl, both of whom claim Saiad descent.

The Saiads consist of a number of groups and cannot accurately be described as a tribe. True Saiads are the descendants of Fátima, the daughter of the Prophet and wife of Ali. The descendants of Ali by other wives are designated as *Ulwi* Saiads by courtesy. In habits, physique, etc., there is little to distinguish them from Afgháns, and not infrequently they are classed as such. In Afghán times they enjoyed great influence owing to their descent. Their power among the people is considerable, but is not so great as it used to be. They have generally become merged in so far as their good and ill, and social customs are concerned, in the tribes among whom they live and (with the exception of a few leading families especially the Bukhári, the Maudúdi and Quraishi who do not give their daughters in marriage to other tribesmen) intermarry with those tribes. The groups of the Saiads in the District are—Péchi 822, Husaini

261, Kharshín 360, Táran 276, Bukhári 140, Bedár 131, Bahlolzai 57, Maudúdi 17, Karbala 13, Khosti 12, Quraishi 11, and miscellaneous 62. POPULATION.

The Maudúdi-Saiads (males 9, females 8) own the whole of the Mánki land and water in Duki, and their headman is Halím Sháh, son of Hasan Sháh, who is held in great respect by the Taríns of Thal. The Karbala-Saiads live in Duki where they have acquired land by purchase from the Umarzai-Taríns. The Khosti-Saiads live in Zhar Káréz and Kach Ahmakzai in the Bori tahsíl. The following remarks are confined to more important groups in the District :—

Péchi-Saiad

The Péchi-Saiads are descended from Saiad Balél, one of the four brothers of the most exalted order of Saiads, who in the days of Hárún, Tarín, left their home in Bukhára on a pilgrimage to Mecca. On their return journey they passed through Pishín. Here Saiad Jamál married a daughter of Hárún and settled there. The other three left Pishín ; Saiad Jalál went to Multán and chose Uch as his residence. Saiad Balél came to reside in Púi, and Saiad Dalél went to Músá Khél where he took unto himself a wife, and his descendants are known as the Gharshíns or Kharshíns.

According to local tradition the Púi valley was held by the Mughals, and the place was known as Jalálábád when Saiad Balél came there. The people asked him to perform a miracle, whereupon he washed his hands in the Púi stream and turned the water into milk, hence the name Pai or Púi (milk in Pashtú). At the prayers of the people he again turned the milky stream into water. Saiad Balél married a Mughal girl and settled in Púi. The possessions of the Péchi-Saiads are revenue-free for the life of the present (1901) grantees, their successors will pay half the assessment, and on the death of the latter full assessment will be levied. The Wani valley is said to have been obtained by the Péchis by force from the Mughals.

In 1901, the Péchi-Saiads in the District numbered 822 (males 427, females 395), almost all (810) being in the San-

POPULATION. jáwi tahsíl. They are divided into three sections, the Musiáni, the Pakhézai and the Mallozai also known as Ghadiáni, and the leading man (1905) among them is Mullá Fateh Sháh. The Péchis are held in respect, but they have adopted all the Dumar customs. They are of a peaceful disposition, most of them being engaged in agriculture and some own flocks also.

Husaini. The Husaini-Saiads (also known as Khundi), in the District, numbered 361 in 1901—males 192 and females 169. Of these, 210 were in the Duki, 148 in the Músá Khél and 3 in the Bárkhán tahsíl. They are chiefly found in Chini in the Músá Khél tahsíl and in Kola Kan and a few other Lúni villages in the Duki tahsíl, where they own lands and are engaged in agriculture. According to local tradition their original home was Khujand in Persia whence they accompanied Amír Tímúr's expedition to India.

Kharshíns. The Kharshíns (properly written Gharshíns) are said to have descended from Saiad Isháq who married a Shiráni woman. According to local traditions, however, they claim descent from Saiad Dalél, one of the four brothers who came from Bukhára. They are divided into six sections, of which the Allahdádzai, Ahmadzai and Fakirzai live in the Déra Ghàzi Khán District, and the Zakráni, Ladhíani and Galazai are found in this District. The present (1905) headman of the Kharshíns is Khán Sáhib Saiad Mehr Sháh who belongs to the Galazai section and to whom the Jáfars of Gargoji also own allegiance. His father Zamán Sháh rendered important services as an intermediary between the British officers of Déra Ghàzi Khán and several of the minor hill tribes, before British influence was established in Baluchistán. The total number of Kharshíns in the District in 1901 was 360—males 200, females 160, of whom 54 were in Bori, 34 in Sanjáwi, 141 in Duki, 117 in Músá Khél and 14 in the Bárkhán tahsíl. In Músá Khél they live in Gargoji, Zárni, Kiára, Rára Sham, and Kachs in Kingri, and in the two last named places they cultivate Lúni lands and pay one-

fifteenth of the produce as rent to the Lúni headman. In Duki they own lands in Taláo Bulanda, Banhar and Chotiáli, and their headman is Hasan Sháh, son of Hamza Sháh, who lives in Palos Kalán. In Sanjáwi they possess land in Chingi Hangáma; in Bárkhán some of them work as tenants in Náhar Kot; and in Bori, they possess lands in Mékhtar, and Kánoki. They are peaceful subjects and good agriculturists.

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Tárans.

The Tárans claim to be descended from Abu Táhír, a Saiad who came from Bukhára and settled in Khost in the Sháhrig tahsíl of the Sibi District, but eventually, leaving his family, returned to Bukhára where he died, and where his tomb is still shown. Their number in the District in 1901 was 276—males 143, females 133, of whom 186 were in the Sanjáwi and 90 in the Bori tahsíl. They own lands at Ghunz and Shírín, in the former, and Kohár Kalán and Khurd, Sharan Alízai and Shabozai in the latter tahsíl which they cultivate themselves. Their leading men are (1905) Kondal in Sanjáwi and Mullá Saif-ud-dín in Bori.

Bukhári Saiads.

The Bukhári Saiads in the District numbered 140 (males 78, females 62) in 1901, of whom 32 are in Bori, 39 in Duki and 69 in Bárkhán. They are descended from Saiad Jamál,* Bukhári, one of the four brothers who came to Pishín in the time of Hárún, Tarín, and married a daughter of Hárún. They are chiefly agriculturists, and own lands in Chotiáli, Nimki, and Dháki in Duki; their headman is Gul Muhammad Akhundzáda who lives in Chotiáli. In Bárkhán they are scattered in several villages, but most of them are found in the Leghári-Bárkhán circles. Their headman in Bárkhán is Tor Khán Sháh of Lákhi Bhar.

Bedár.

The Bedárs, who number 131 and are settled in Bedár Sháh Káréz, Bedár Chína, Murtat Khurd and Punga in the Bori tahsíl, cannot definitely trace their origin to any well-known Saiad, but they allege that they are connected with the Saiads of Pishín whence they migrated to Khashnob Tangi in the Kila Saifulla tahsíl. Having fallen out with the Jogízais, they

* Settlement Report on the Pishín tahsíl (Calcutta, 1899), page 35.

POPULATION. came to the Bori valley and made the *kárêz* now known as the Bedár Chína. They are peaceful agriculturists and share good and ill with the Sanzar Khéls whose social customs they follow. Their leading man (1905) is Mazo, son of Sarfráz.

Bahlolzai. The Bahlolzai Saiads number 57 (males 27, females 30), of whom 14 are in Sanjáwi and 43 in Duki. They own lands in Ghair Khwáh in the Sanjáwi tahsíl, and in Palos Kalán, Manzaki and Nimki in the Duki tahsíl. They are peasant proprietors but some of them work as blacksmiths.

Khétráns. In the Census Report for 1901, Mr. R. Hughes-Buller gives the following interesting account of the Khétráns:—

"The Khétráns are believed by some to be an offshoot of the Kánsi tribe of Afgháns and are said to be descended from Khair-ud-dín *alias* Kharshabún, son of Saraban, who was one of the three sons of the common ancestor of the Afgháns, Qais Abdur Rashíd. If this theory be correct, the Khétráns are connected with the Quetta Kánsis. Others consider them to be of Baloch stock, and they were classified as such in the Census records of 1901, but after visiting their country, I decided that it was best to give them a separate place from either Afgháns or Baloch in Imperial Table XIII, for the reasons which I shall now explain.

Their origin. "The Khétráns are of very mixed race, and contain elements both from among the Afgháns and Baloch and from the Jats of the Punjáb plains. They are divided into three main clans—Dharas, Ispáni and Phalliát. The two latter are known locally as the Ganjúra. The distribution of the tribe into these three clans or divisions appears to have been an arbitrary grouping effected by the tribe for the sake of convenience in military expeditions, and in the division of the spoil and of *badraki*, the charges made on goods passing through their country. A similar system of arbitrary distribution into clans has been adopted by the Baloch and Bráhuis. The Dhara are divided into a number of sections, the chief among which aré the Chacha and the Hasni. Among the Ispáni clan the Mazaráni and Náhar are principally worthy

of remark, whilst the Phalliát, as the name implies, means sections collectively, and it was composed of the groups remaining at the time of the arbitrary division, after the formation of the Dhara and Ispáni. POPULATION

"The original stock of the Khétráns includes the Chachas, and came from Vihowa in the Punjab. It is said that the new-comers drove out the Laths, a few of whom are now to be found among the neighbouring Afghán tribe of Lúnis. That the Chachas were formerly a powerful tribe is proved by the fact that when Messrs. Steel and Crowther were on their way from Ajmér to Ispahán in 1614-15 A. D., marching by the way of the Sanghar pass through Baluchistán, their caravan had to halt ten days at a place called Lacca in the Punjab to procure an escort to conduct them to Chatza (*sic*).

"The Chachas were afterwards joined by the Mazaránis. The Chacha. The latter claim Afghán origin, but the suffix to their name denotes that they are of Baloch stock. There is a section of the same name among the Marris, but whether the Marri Mazaránis come from the Khétráns or the Khétrán Mazaránis from the Marris it is impossible to say. The Mazaránis are the group to which the Khétrán chief and his family belong. In the course of the quarrels which took place between the Mazaránis and the Chachas, the Mazaránis won the day; and in the days before the British occupation the Mazaránis, in consequence of their prominence, took two shares in all plunder as against one share taken by the Chachas.

"Later on the Chachas and Mazaránis were joined by the Hasnis, who had been a powerful tribe, holding the eastern part of what is now part of the Marri country, but were expelled from it by the Marris. The Hasnis are probably of Baloch descent; but we find amalgamated with them the Silách, who are Afgháns of the Miáni division of the Sarabans and connected with the Jáfars and Lúnis. On the arrival of the Hasnis, the one share of the plunder previously taken by the Chachas was divided into two portions, the Chachas taking one-half and the Hasnis the other.

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The Ispáni.

"The Náhars, who are included in the Ispáni clan, are the remnants of the Nághar Afgháns. Nághar was one of the four sons of Dáni, son of Ghurghusht, and therefore a brother of Kákar.* The Nághars appear to have spread out eastward and southward into the valley of the Indus, and in the reign of Akbar, Sultán Muhammad Khán of Bhakar marched against the Khán of the Nághars in Sítpur, which was one of the seventeen *mahâls* of the Berun-i-Panjnad district of the Multán Súbah. The Ain-i-Akbari also mentions that the inhabitants of this District were Afgháns. From this time the Nághars appear to have fallen back before the approach of other people from the south and west, and the identity with them of the Náhars now living in the Baluchistán hills appears fairly certain. Another section of the Ispáni which may be noticed is the Kásmáni, the nucleus of which is admitted to be a group of Baloch from the Bugtis.

The Phalliát.

"Among this clan the Rotars are Jats, many of whom are to be found in the Punjáb and in the Kachhi plain. No doubt further enquiries would elicit the extraneous origin of many other sections and sub-sections."

Mr. Hughes-Buller concludes these remarks by saying: "My chief object in describing the composition of the Khétráns has been to show that it is impossible to classify them either as Baloch or Afgháns, and that their nucleus belonged, in all probability, to neither of these races, but was most likely of Jat extraction. Like many of the tribes surrounding them, the Khétráns are composed of a number of heterogeneous groups of varied origin, bound together not by kinship but by participation in common good and ill and by the occupation of a common locality†".

In amplification of these remarks it may be mentioned that further enquiries have elicited that the Khétráns have many heterogeneous groups among them, that it is even

* The ancestor of the great Kákar tribe.

† *Census of India*, Vol. V and V-A (1901), by R. Hughes-Buller, C.S., Chapter VIII, pp. 108-9.

asserted that the original stock belonged to a Hindu Jat family, and that the division into three *dhaks* or clans was, for military purposes, effected by Muhammad Khán, each clan representing the number of shares or sections of which it was originally composed, viz., Ispáni 8, Dhara and Phalliát 6 each. According to local tradition, in the early days of the occupation of the valley by the Khétráns, the Lath Afgháns oppressed them, and one day the Laths beat a shepherd of Umar Sheikh, the progenitor of the Umriáni Sheikh, whereupon the Sheikh cursed them and the Laths left in a body for Sangori in the Lúni country. Then the Khétráns divided the country among themselves; the Sheikh selecting ten *joras* of land in Kuba in the Bagháo circle, the other Khétráns (Ganjúra) agreeing to give to his descendants one-sixtieth of the produce. These Umriánis are now included in the Isháni section of the Phalliát. POPULATION.

Toya, another Sheikh, was a companion of Umar, and the Phalliát, except the Hasnis, agreed to pay one-sixtieth of their produce to his descendants, who are now known as Toyáni. A few families of them live among the Wanéchi Spín Tarín and are known as Tehánri. A few remnants of the Lath, now known as the Barthiáni, are included in the Banaráni-Phalliát and live in Fazal Khán village. The Mat are also considered to be descended from Laths. Other alien groups are—Kásmáni said to be the descendants of Kásu, a Rahéja-Bugti; Jehándún Náhars alleged to be Sanzar Khél-Kákars, descendants of one Bake; Phadals, Tarín-Afgháns; the Luhma Khétráns who are treated as a priestly class, Mahozai-Sanzar Khél Kákars of Bori; the Isháni, Arab Khél-Kibzais, descendants of Aulia who came from Músá Khél to Bárkhán, and the Kachhéla among the Dhamánis, Jats from Kachhi.

The Khétrán country was one of the sub-districts of Séwistán and of the Hind Province of Tatta. In Akbar's time it was called Janjah. The District, according to Dr. Duke, was peopled by a Jat community of Hindus who Brief history and chief's family.

POPULATION. apparently became incorporated with a small Pathán tribe which had marched from Vihowa under Muhammad Khán, and who had assumed the title of Khétrán or cultivator. Bárkhán, the name of the upper portion of the long valley in which the Khétráns live, was called Báro Khán, after Báro, the founder of the Bárúzai family of Pannis, who either ruled it on behalf of the governors of Sibi, or owned it himself. Báro Khán was represented by a *náib* who is stated to have visited the Khétráns each year and on each occasion he violated the chastity of some Khétrán woman. This conduct led to his being murdered, and the Khétráns state that no more Bárúzais came after this occurrence. When the Laths were expelled the descendants of Isa ruled in Bárkhán. After a good deal of fighting among themselves, they made Girazo Khán, Mazaráni, Sardár and to him succeeded his son Ikhtiár, who was followed by Mír Háji Khán. The latter's rule is memorable among the Khétráns for a great defeat which he inflicted on the Zhob Kákars.

Mír Háji Khán was succeeded by Bahrám Khán. Both of Bahrám Khán's sons were killed and left no children, and the Sardárship then devolved on Nihál Khán, one of the five sons of Bahrám's brother, Baloch Khán. Two of his brothers succeeded Baloch Khán in turn, named respectively Bábul Khán and Sirázo Khán. The latter's son Chúr Khán was then made nominally chief; but to his three nephews, Mír Háji, Said Khán and Bábul Khán, was entrusted the administration of Khétrán affairs. This arrangement was disastrous for the Khétráns and at length the three brothers killed Chúr Khán, and, appointing his son, Jalan Khán, nominal chief, centred the control in the hands of Mír Háji. The tribe prospered exceedingly under Mír Háji, and he revenged a defeat which the tribe experienced at the hands of the Marris by the destruction of Karam Khán Bijaráni's fort at Mámand, which is in ruins at the present time.

"Háji Khán died, leaving three sons—(1) Umar Khán, (2) Nawáb Khán (pretender), (3) Balu Khán.

"But Háji Khán was not succeeded by any of his sons, POPULATION his brother Saiad Khán being elected by the republican Khét-ráns to succeed him. He too died and left three sons—(1) Dost Muhammad, (2) Sorni Khán, (3) Kádir Baksh Khan (pretender).

"Saiad Khán died and again the Khétráns went back for a chief, and elected his brother Bábul Khán. All went badly with the Khétráns from this time. Nawáb Khán and Kádir Bakhsh set up as pretenders; Kádir Bakhsh went to the Marris and gave his step-mother in marriage to Gazan, the Marri chief, and led the Marris against his own countrymen. The northern trade routes were now stopped, and the country devastated.

"Sir Robert Sandeman made peace between Kádir Bakhsh and Bábul Khán.

"Bábul Khán died, and the tribe elected his son, Baloch Khán, to succeed him. The two cousins, Nawab Khán and Kádir Bakhsh, remained hostile to him, and on a quarrel arising between the Marris and Khétráns in February last, in which the Marris were at first in the right, Nawáb Khán conducted a large Marri force against his own people. Fighting lasted all the summer."*

Baloch Khán made peace with Nawáb Khán by marrying his mother, but he was weakened by the hostile attitude of Kádir Bakhsh Khán and his party, and blood was shed on both sides. As far back as 1880, the Khétráns submitted a petition to the British authorities at Déra Ghází Khán offering to pay revenue and to be taken under British protection. In 1883 Sardár Baloch Khán met Mr. Bruce, then Political Agent, Thal Chotiáli, with a *jirga* of his tribesmen and the cases pending between the Khétráns, Lúnis and Marris were settled. In the same year the management of the Khétráns was made over to the Agent to the Governor-General, and in 1887 Sardár Mehráb Khán (born about 1853) succeeded his father Baloch Khán as chief of the Khétráns. Owing to grave misconduct he

* *Dr. Duke's Report of the District of Thal Chotiali and Harnai*, 1883.

POPULATION. was suspended from his *sardári* for two years from the 24th of February 1900, and the work of the tribe was in the meantime carried on by his brother Baktiár Khán. Sardár Mehráb Khán was restored to his former position at the end of two years.

The other important men are—Mír Bakhtiár Khán and Imam Bakhsh Khán, Mazaránis; Jahán Khán, Chacha; Brahím Khán, Kásmáni; Shádo Khán, Isháni; Ahmad Khán, Muhma; Mírán, Rabáni; and Shér Muhammad, Toyáni.

The Khétráns are anything but a warlike race. They are not a plundering tribe themselves, but in pre-British days were the recipients of almost the whole of the property stolen from the Punjab and the Sind Frontiers, and at one time when a great deal of plundering was going on, Captain (the late Sir Robert) Sandeman, then Deputy Commissioner, Déra Gházi Khán, found out that stolen camels were selling at Bárkhán for Rs. 10 a head. They also used to afford protection to absconded criminals and others, whom they were glad to allow to fight and plunder for them. The Khétráns, though generally clothed in the same way as Baloch, often have a coloured shawl thrown over their shoulders or loins and a few wear a *lungi* or blue turban. They wear their hair like the Baloch, and are hardly distinguishable from them, except that their features are rather more sharp and pointed and their complexion sallower. Very many of them also wear charms of lead or beads on their turbans or round their necks. The majority of the Khétráns, as their name implies, are agriculturists, but the Suman, Lala, Waga, Sheikh and Hasni combine flock-owning with it. There is a considerable number of artisans including 48 families engaged in carpet weaving and 18 families of workers in leather. In 1901 the Khétráns in the District numbered 13,586, (males 7,115, females 6,471) of whom 692 (males 387, females 305) were in the Duki tahsíl, and 12,894 (males 6,728, females 6,166) in the Bárkhán tahsíl. The Khétráns are divided into three clans—the Dhara (4,091), Ispáni (4,190) and the Phalliát (5,279). Most

of those in the Duki tahsíl belong to the Hasni section (342), of the Dhara, the Luhma (42), Náhar (49), and Kásmáni (44) sections of the Ispáni, and the Rabáni (42) and Rotar (129) sections of the Phalíát. POPULATION.

Hasnis.

The total number of Hasnis was estimated in 1882, at Thal (550) and Bárkhán (594). In 1901 they numbered 1,434 (males 753, females 681), of whom 342 are in Duki and 1,092 in Bárkhán. Though they are now an unimportant group, amalgamated with the Khétráns, they were in former days the most powerful of the so-called Baloch tribes of Séwistán and were moreover desperately addicted to raiding, a brief account of them is therefore not void of interest.

The Hasnis claim a Tor Tarín origin and their ancient home was in Pishín. About two and a half centuries have elapsed since Hasan and Músá Khán, Tor Taríns, with their families wandered to the Marri hills in search of livelihood. They took service with the Marris as shepherds, and at length a Marri carried off Músá's wife. Hasan came to Pishín for help. The Taríns despatched a party of 12 men with Hasan who was able to recover Músá's wife and kill her abductor, but a feud was thus established between the Marris and Hasnis as the Marris called their opponents from the name of their leader. The Taríns made repeated attacks on the Marris, turned them out and occupied Kahán, Pheláwar and Nesáo. Hasan was subsequently killed in a raiding expedition against the Bráhuis in the Bolán. He was succeeded by his son Muhammad, who managed the tribe for 20 years, and lived in peace with his neighbours. On his death his son Núr Muhammad succeeded him. He was chief of the tribe for 30 years, and during this period the Hasnis reached the summit of their prosperity. Núr Muhammad was succeeded by his son Sadík Khán, who permitted the Marris to build a fort and live as *hamsáyahs* at Kahán. The Marris, however, gradually collected together and fought with the Hasnis at Pheláwar, where 200 Marris and 100 Hasnis were killed. Peace was then concluded, but at the end of a year quarrel-

POPULATION. ling again commenced with reference to land. The Marris now applied to Nasír Khán, the Great, for assistance and he sent a force to help them; the Hasnis were defeated by the combined Marris and Bráhuis and retired to Kohlu, which in those days belonged to the Zarkún Patháns. This was about 1780 A.D. Subsequently another fight ensued at Daola Wanga, when Sadík, the Hasni chief, was killed and the power of the Hasni tribe was completely broken. The place has since been called Sadík Wanga. Sadík's son, however, continued to fight against the Marris and he was assisted by a Lúni force, but was again beaten; 58 Hasnis and 38 Lúnis fell, whilst the Marris lost only 17 men. A further attempt resulted in the total destruction of an advanced party of Lúnis under their chief Gul Khán. This defeat resulted in the dispersion of the remainder of the Hasnis; a portion of the tribe took refuge with the Khétráns, and the Naodhánis migrated and occupied Gulu Shahr in the Sibi tahsíl. The Shádozais of Thal persuaded those Hasnis who lived with the Lúnis to join them at Thal Chotiáli, and assigned them lands in Jhalár on payment of one-sixth of the produce as rent, which was subsequently reduced to one-tenth. The Hasnis have since purchased some land near Jhalár and have established a village, Bani Kot. The Hasnis in Bárkhán established Hasni Kot on the bank of the Han, close to the present tahsíl headquarters; this was raided by the Kákars before the British occupation of the valley and then abandoned by the Hasnis, who moved to Leghári-Bárkhán and Tagháo, where they obtained land for cultivation from the Rabánis on payment of rent. Alihán Hasni subsequently obtained land from Government for cultivation, and established the Rarkan village. The Hasnis also acquired occupancy rights in Tang Kárér, Chhodi, Tabal, Tah Jamál Khán, Kach, from the Lúnis to whom they pay *haq-i-topa*. Their present headman in Bárkhán is Núran Khán.

The Hasnis are industrious cultivators and flock-owners, and Dr. Duke described them as "fine race of hardy and

brave men." Their language is the same as that of the Khétráns, but most of them can talk Pashtú and Baluchi; they dress like the Thal Patháns and wear long curly hair like the Baloch. POPULATION.

The total number of Baloch enumerated in the District in 1901 was 1,473—males 802, females 671—and this figure does not include about 40 families of the Marris who have settled with Khán Sáhib Mehr Sháh, Kharshín, on the Rára Sham land, and the Marri and Bugti tenants on the Leghári-Bárkhán land who were enumerated and included in the total strength of their respective tribes in the Sibi District. Baloch.

The Baloch in the District were composed of 814 Buzdár, 139 Gurcháni, 182 Kaisráni, 316 Leghári and 22 others, and were distributed over the Duki and Sanjáwi tahsíls (59), Músá Khél (522), and Bárkhán (892). Most of these Baloch visit the District periodically to graze their flocks, but some have acquired land either by purchase or on rent, while others work as tenants. In the Músá Khél tahsíl there are 36 families of Buzdár *hamsáyahs* and tenants of Saiad Mehr Sháh; and some of them also own land in Níli and Indarpur; their leading men are Horán Khán, Namardi and Muhammad Khán, Ghulámáni. Some of the Kaisránis have purchased lands from the Jáfars at Drug. In Bárkhán the Buzdárs cultivate lands in Lanjáni and Havéli Rahmán, and some have obtained Lúni lands on payment of *haq-i-topa* in Tang Kárér and by purchase in Isiáni. Their headman is Durwésh. The Gurcháni and some Buzdárs work as tenants in Chacha and Mat; and the Legháris in Chhapar, Maror, Havéli Fajiáni and Mohma. In Duki the Buzdárs work as tenants and have also purchased some land in the Lúni and Lákhi circles. Those who have settled in the Duki tahsíl intermarry with the Afgháns, but others still retain their racial differences and marry among their own tribes.

In the census of 1901 the total number of Hindus, in the District, including 326 Sikhs, was 3,261, of whom 2,772 were censused on the standard schedule and chiefly repre- Hindus.

POPULATION.

sent aliens from the Punjáb and Sind, while most of those enumerated under the family system (1,489) represented domiciled Hindus. These 1,489 persons were distributed over Sanjáwi tahsíl (15, all aliens), Músá Khél (99), Bori (232), Duki (444) and Bárkhán (699). The domiciled Hindus are chiefly to be found at Drug in the Músá Khél tahsíl; at Mékhtar and Chína Alízai in the Bori tahsíl; Duki, Habíb Kila, Thal, Nimki and Chotiáli in the Duki tahsíl; and Chúhar Kot, Háji Kot and Tagháo in the Bárkhán tahsíl. They have been living in these villages since long before British occupation, carry on a flourishing trade, and some of them have acquired land; the Motia Káréz in Duki, constructed by Motia Sawárézai in 1894, is one of their possessions. Some Hindus of Thal in the Duki tahsíl carry on a considerable trade in wool and grain. They originally came from Harand, Dájil and Mangrota in the Déra Ghází Khán District and Lahri in Kachhi. Most of them belong to the Arora caste and have a complement of Brahmans and *fakírs* of various persuasions. Their religion is an admixture of Sikhism and idol worship; most of the men in Bárkhán belong to a secret sect called locally the *dév* or *indar márag* another name for *bám márag*. Females are not admitted into the sect. The free use of intoxicants and flesh eating are the chief visible signs of the sect. Those in Drug are disciples of Gusáín Lálji of Déra Ghází Khán.

The Hindus are lax in their observances, and employ Muhammadan servants to fetch water, eat meat freely, except on certain days held sacred, such as the first day of the month *sankránt*, *chanrát* or the first night of moon, *Púran máshi* or night of full moon, and Tuesday which is considered the day of Hanumán, the monkey god. In pre-British days mixed dances, in which Hindu males and females took part with the Hamzazai women and men at Mékhtar on the occasion of marriages and births, were not uncommon, but they are now falling into disuse. The Hindus of Bárkhán make offerings to the keepers of the

shrine of Pír Mahmúd on the occasions of marriages and the birth of male children. Some of the Hindus have adopted the Pashtú suffix "zai" or "zoi" such as the Sawárézai of Duki, and Panjézai in Mékhtar. But perhaps the most curious instance of the assimilation by Hindus of Muhammadan traits of character is to be found in the Rámzais, a few of whom are to be found scattered throughout Duki, Bárkhán and Bori. POPULATION

"The common ancestor of these curious people was one Rám, a Mukhíja Arora of the Déra Ghází Khán District by caste. Many years ago Rám and his brothers joined the Hasnis, then the powerful tribe, but now sunk to a minor position among the Khétráns. The brothers and their children appear to have taken part in the forays and raids made by the Hasnis, and to have generally shared the fortunes of the latter until they acquired a great reputation for bravery and daring. Gradually the descendants of Rám lost their caste appellation, and took the new and distinctive appellation of Rámzai. Many stories are current of the bravery displayed by the Rámzais in the numerous fights in which they took part. They are not only experts with the sword but display the same love for horses and horse-racing as the Baloch, and most of them are as adept as the Hasnis themselves in their national pastimes such as dancing.......They have long curly locks like other Baloch. Their dress consists of the long shirts, full trousers and long head-dress of the Baloch, the only distinction being a small amount of coloured embroidery on the cuffs and front opening, whilst the Hasnis, like all Baloch, wear nothing but white*."

The leading men among the Hindus are—Chaudhri Jasa Rám, Toda Rám and Khana Rám in Drug; Mukhi Múlchand, Tella Mal, Misar Jesa Rám, Mukhi Badla Mal and Jétha Mal in Bárkhán; Dharma in Mékhtar; and Bakhshu Rám, Dharmu, Gurdás, Motia and Mélu in Duki.

* *Census of India* (1901), Vol. V and V-A, Baluchistán, Chapter III, pp. 46-47.

POPULATION. The Hindus speak the language of the tribes among whom they live, those in Bárkhán and Drug speaking Barézai or Jatki dialect, while those in Duki and Bori speak Pashtú. There are many Hindu women and children, and also grown up men who have not mixed with natives of India, who do not know any dialect but Pashtú. Their accounts are, however, kept and their correspondence carried on in Lahanda character.

Social and domestic ceremonies. Betrothals are arranged by the parents of the parties concerned; marriages are performed by Brahmans according to Hindu rites (*lánwán*) and widow marriages are common; one of the brothers can marry a deceased brother's widow. The system of exchange (*watta satta*) prevails among the Hindus of Drug, but not elsewhere, and the payment of the bride price is uncommon, but, if poor, the parents of a girl, or the guardians of a widow do not object to accept *walwar* which varies from Rs. 200 to Rs. 1,000 in the case of a virgin, and half of this amount for a widow. The marriages are adult in Duki and Drug, that is, the bridegroom is generally over 20 years of age and the bride about six years his junior; in Bárkhán the bride is seldom over 15 years, while the present tendency among the Mékhtar Hindus is also to marry minor girls. On being asked the reasons for this retrogade step, Dharma, the *mukhi* or headman of the Mékhtar Hindus, said: "*Zamána názak hai,*" viz., the times are softer. In former days the women knew that their lives were in the hands of their guardians, and that the slightest suspicion against their character involved the extreme penalty. But now they have gained the idea that, to some extent, they are free, and that if they can only manage to reach the tahsíl, and put in a petition, their life is then safe. The girls are, therefore, now given away in marriage before they are able to think for themselves.

Boys are generally named on the 6th day, and the girls on the 3rd day, after birth; the name is selected by the family priest or Brahman and is recorded in the family

account book (*bahi*), the entry being attested by the priest and the *mukhi*. The birth of a male child is announced generally, by a gunshot, and dances take place. Short forms of names are in common use such as Dharma, Kotu, Kamo for men, and Cháwli, Sukhi, Láli for women. POPULATION.

Dress.

The dress of men consists of a red cap or turban, a shirt, trousers, the lower part of which must also be red, a scarf or *chadar*, and sometimes a smock frock (*angrakka*) is also worn over the shirt. The women wear a wrapper (*bhochan*), shirt (*chola*) and trousers (*suthan*), but the use of trousers among the Hindus of Duki and Bori is rare, the women generally wearing a long shift, ordinarily of red cloth, like their sisters of the Afghán tribes. The Hindu women have more ornaments and of better quality. The men also wear gold ear-rings.

Disabilities in pre-British days.

The Hindus in pre-British days lived under the protection of the headmen or *maliks* of villages, and in Bárkhán they were divided among the leading Mazaráni families. They had to pay to their protectors an annual tax per family or shop, which in Drug varied from annas 4 to Re. 1; and in Bárkhán amounted to Rs. 2. On marriages Rs. 5 were paid in Drug, Rs. 12 in Mékhtar, and Rs. 60 in Bárkhán, the payment being known as *jhajhar*. The Hindus of Duki presented a *lungi* to their headmen on the occasion of marriages. Certain taxes were also levied on imports. In consideration of these payments the headmen protected the Hindu's life and property, settled their disputes with the tribesmen and helped them to recover their debts. All these taxes have been abolished since the British occupation.

Be it said to the credit of these protectors, wild in other respects as they were, that they always kept faith with their protégés, guarded their honour, and that in pre-British days not a single case occurred so far as Hindu women were concerned in which a tribesman was the aggressor. There have, however, been a few cases in which Hindus voluntarily accepted Islám, married tribeswomen and have been absorbed in the tribes.

POPULATION. In Mékhtar the Hindus shared in the good and ill of the section or tribe to which they were attached, and in tribal fights they had to supply to their faction gunpowder and ammunition. Dharma, the *mukhi* himself, owns the strongest mud tower in that village.

Arya Samáj. The Arya Samáj movement is limited to the Hindus from the Punjáb, who are chiefly Government officials. There is a prayer hall or *mandir* at Loralai, but no organised body—*samáj*—exists at present (1905).

Religion. Of the total population of 67,864 censused in 1901, including natives of India, 64,560 or 95 per cent were Muhammadans, 3,261 Hindus, including 326 Sikhs, 30 European and Eurasian Christians, 12 Native Christians, and one Jew.

Islám. The Muhammadans of the District belong to the Sunni sect. The Saiads and *mullás* alone are versed in the tenets of their religion. The tribesmen are generally devout in performing their prayers at the stated times, and in keeping fasts, while some of them set apart a portion of their income for charity (*zakát*), but in other respects their religion is mingled with superstition and there is a general belief in the intervention of ancestors and saints in the pursuits of daily life. These are invoked to cure diseases, to avert calamities, to bring rain, and to bless the childless with offspring. Saiads, Sheikhs and *mullás* also play an important part and their amulets, charms and blessings are constantly invoked. Some of them are credited with the power of bringing rain, of curing diseases and snake-bites, of granting children, of averting rust and locusts from the crops and of exorcising evil spirits. A list of the most influential *mullás* is given in table IV, Volume B.

A common superstition is that if some one calls to an Afghán or a Khétrán as he is starting on a journey, he must come back and start again or sit down before going farther. If, immediately after starting, a hare crosses his path, or he sees a corpse being carried to the graveyard, he must

return home and start again. A Dumar woman would not eat the heart of any animal, nor would a Dahmáni-Khétrán eat the udder of a sheep, goat or cow killed for food. No Dumar will cut the wild fig tree or burn it as fuel. No Kákar woman would give away salt after sunset; and Kákars generally do not start on a journey in a westerly direction on a Friday. Marriages are generally not celebrated during the first 13 days of *safar*, and in *muharram*; among Kharshín Saiads on the 3rd, 8th, 13th, 18th and 28th of a month, among Khétráns in the month of *jamádi-ul-awal* and among Sanzar Khéls in the month of *shábán*. The Babozai Dumars do not begin any new work on a Friday or on the last day of a month. Among the Khétráns, while the men were on a raiding expedition, the females of the household would not grind corn, nor would Dumar women wash their hair on such occasions. The Isots do not enter into any bargains or give loans on a Sunday. Before starting on a raid the Wanéchis were accustomed to pass under a sheet held up by two of their sacred class (Tehánris or Toyáni as they are known in Bárkhán) or two of their elders; and this was considered to render them proof against the bullets of their enemies, though not against their swords. The same ceremony is observed in times of cholera. In pre-British days ordeals by water and fire were commonly practised to prove the guilt or innocence of a suspected person, but these have now fallen into disuse. POPULATION.

There is a general belief in evil spirits and their powers of theft, and the grain on the threshing floor is encircled by a line drawn with a sword, and a copy of the Korán is placed over it until it can be measured for division, lest evil spirits should interfere.

Occupations were only recorded in detail in 1901 in the areas censused on the standard schedule, the population of which was 4,248 or 6 per cent of the total population of the District. These chiefly represented aliens in the service of Government, both civil and military, private servants, labourers, traders and artisans. Occupation.

POPULATION.

Outside the town of Loralai and the bazars, the family system of enumeration was followed, the occupation of the head of the family being assumed to be that of the remainder. The population of the District may, in this case, be roughly divided into six classes by occupation—land-owners, cultivators, flock-owners, traders, labourers, and artisans. The land-owners are the most numerous class, and the other classes are recruited from among them. They include the principal tribes of the District, viz., the Kákars, Pannis, Taríns, Lúnis, Isots, Jáfars, Zarkúns, Ustránas, Músá Khéls, Zamarais, Khétráns and some of the Ghilzai and Baloch. Most of these cultivate their lands themselves, except the leading men among the Mazaráni Khétráns and the wealthier classes among the other tribes who employ tenants. The tenants are generally the poorer tribesmen themselves, and the Buzdár, Gurcháni, Leghári and Marri Baloch; and the Páhi and Hasni are also employed as tenants more especially in the Bárkhán and Duki tahsíls. The Sémáni and Malgaráni, Spín Taríns, who do not own much land, and Ustránas in Duki work as tenants. The flock-owners are chiefly the Laharzai division of the Músa Khél; the Súnman, Lala, Waga, Sheikh and Hasni in Bárkhán; the Hasni and Waliáni, Marúfzai, Mírzai, Lado and Kata Khél sections of Lúnis in Duki; the Kanozai, Zakhpél, and the Brahazai, Talkhánzai, Bádinzai sections of Shábozai Dumars in Sanjáwi; and the Utmán Khél, Zakhpél, Ahmakzai and Mírzai in Bori. Almost all of them, except the Bádinzai Dumars who entirely subsist on the produce of their flocks, combine agriculture with flock-owning.

The labourers are chiefly to be found among the poorer Kákars, and the Ghilzai nomads who visit the District in winter.

The artisans indigenous to the country are the blacksmith, carpenter, weaver and leather worker; the latter class are very limited, and there are 48 families of weavers (*chhanáls*) engaged in carpet weaving in the Bárkhán tahsíl.

There are only a few traders among the Músa Khéls, Khétráns, Shádozai and Taríns of Duki, the trade of the District being in the hands of the Hindus and some of the Ghilzais. The Lasiáni, Marpáni, Adwáni, Sémáni and Malgaráni, Spín Taríns; the Alíjánzai Shádozai; the Masézai, Dahzai, and Umar Khél Ustránas in Duki deal in cloth and shoes which they import from Jhang, Sind and Multán. A few Umarzai Taríns of Duki are engaged in the cloth trade in Calcutta and Bardwán. POPULATION.

Social life.

Social or class distinctions are little observed among Afgháns as a rule; though there are a few families such as the *sardár khéls* and some of the Saiads, who for various reasons claim a superior social status to that of their fellows. Among the rest, social position is on a uniform level. Even the title of *malik* confers little distinction, and the holder of the title is treated as an equal by the villagers. In former days these *maliks* exercised considerable influence, were largely responsible for the revenue and general administration, and, as such, claimed superiority of status, but this has now considerably diminished. In the absence of a Saiad or *mullá* precedence in an Afghán assembly is generally given to the eldest.

The above remarks do not hold good with the Khétráns, among whom the chief and the *wadéra* or headman of the clan still occupy a social position which is superior to that of the rest of the tribesmen, and members of the Jogízai family also hold a superior position among the Sanzar Khél Kákars.

As elsewhere in Baluchistán, persons following the occupation of artisans are always placed at the bottom of the social scale. The Dumars, to whom a slave origin is ascribed, are also held to be inferior, but this inferiority does not place any restriction on marriage relations.

The custom of *hál*.

A strictly Baloch custom is that by which any Baloch travelling is asked by those whom he may chance to meet, for the news, commonly called *hál* by the Baloch themselves.

POPULATION. The *hál* means the latest intelligence which the traveller is bound to communicate forthwith. The interrogator in his turn reports the news he has gained to the first person he meets, and thus all sorts of intelligence are quickly spread amongst the Baloch. The custom is not confined to travellers, but when men of position meet, the *hál* must be given and received in strict order of precedence. The enquiries are profuse and cover a wide range, but a reference should never be made to a wife or other female relative. When addressing a chief, the terms *sáin, dhani* (lord) are used, while for persons of sanctity the terms *pír sáhib, mullá sáhib, míra* or *sheikh sáhib* are used, their hands are kissed and people rise when they enter an assembly.

The Khétráns, the Isots, Jáfars, Zamarais and Laharzai Músá Khéls who live in the immediate neighbourhood of the Baloch tribes, follow the Baloch custom of *hál*, but among other Afghán tribes of the District the form is much shorter. Enquiries and answers are limited to the usual salutation, welcome, and enquiries after the health of the person concerned and also of his immediate male relations.

Custom of hospitality. With the Khétrán, hospitality is a sacred duty and may also be considered a part of his religion. A tribesman's door is open to all-comers, and an enemy even may not come to his house without being supplied with the best his host can offer. In almost every important village there is a *darbán* whose duty it is to look after any strangers who may happen to stay in the village and to obtain food for them from the villagers in turn. In certain villages such as Dub, Uchri, and Rarkan, land is distributed according to the number of guests (*náthi*) which a landlord undertakes to entertain, while in others, outsiders are also given land to cultivate so long as they undertake to feed a specified number of guests. A similar system obtains in the Zarkún villages in Duki.

Among the Afgháns hospitality is not so profuse, and the custom is limited to relatives and friends who are entertained

according to their position. Strangers generally collect in the village *masjids* where their food is sent to them by the villagers who may happen to meet them at the time of prayers. The Músa Khéls and Isots, and the tribesmen in the Lúni and Lákhi circles of Duki follow the *lwasta* system under which the owners of 20 sheep or 7 cattle among Músa Khéls and Isots, living in a hamlet during the winter, feed one guest in turn, and the owner of a *jora* of land in Lákhi and Lúni undertakes a similar obligation. POPULATION

A curious custom among the Sanzar Khéls, Zakhpéls, Dumars and Péchis was to supply a grown up girl to a friend, a relation or a man of position and influence, for entertainment (*majlis*) when he happened to become a guest, and the custom was so far respected that in the absence of a girl in the host's family he considered it his duty to obtain the loan of a girl from one of his friends, relations or neighbours. This custom, which is now on the decrease, occasionally led to abuses.

Co-operation among the tribesmen.

It is customary for the tribesmen to raise subscriptions among themselves on certain occasions, the system being known as the *baspan* or *sawál*. Such subscriptions are raised when an individual has been reduced to poverty owing to unforeseen circumstances such as the burning down of his house, or when a heavy fine has been imposed upon him, or when he has to pay compensation or bride price. The leading men also raise such subscriptions when they are heavily involved in debt due to profuse hospitality or other expenses connected with their position. Contributions are invited by the person in need from among his own tribesmen, and occasionally from friends and acquaintances among other tribes who pay him in cash or kind according to their means.

Food.

The majority of the people have only two meals daily, one in the morning called *brazar* or *markhúma* and the other at sunset (*máshám hor* or *mákhustan*), men and women generally eating separately. Some of the well-to-do have a third meal early in the morning, and the Dumar and Péchi

POPULATION. cultivators of Sanjáwi have generally a third meal in the afternoon. All Afgháns have voracious appetites, and a male adult will eat as much as 2 lbs. of bread at a meal if he can get it.

Wheat is the staple food grain and is made into unleavened cakes (*patíri*) baked on a griddle, or in an oven. In the summer leavened cakes (*khamíri*) are usually eaten for the morning meal. Nomads on the march eat *kák* made by wrapping dough round a hot stone and putting it in the embers. Most people eat their bread plain and without relish, but among the Kákars an infusion of *krut* known as *krut ghuri* is sometimes poured over the pieces, to which boiling *ghí* is added. The tribesmen, and more especially the flock-owners among them, consume milk and its preparations, generally buttermilk (*shalombai* or *lassi*) with their meals. Cows are kept by the cultivators among the settled inhabitants, but the milk commonly drunk is that of sheep and goats. Curds made with rennet or *khamázurae* (*withania coagulans*) form the basis of most preparations including butter and cheese. Next to milk, *krut* is in demand in Bori and Sanjáwi, and consists of balls made of boiled whey to which salt has been added.

Meat is seldom eaten in summer except when the inhabitants of a hamlet combine to buy a sheep, goat or bullock, or when a moribund animal is killed. It is usually half boiled and is cooked without condiments except salt.

Ogra or porridge made of crushed wheat, rice, maize, or *mung* boiled in water in winter, and in buttermilk in the summer, was the most common article of food in former days, and is still popular among the Kákars of Bori, and the tribesmen generally in the Sanjáwi and Músa Khél tahsíls. Cakes made of maize, *juári*, *azhdan*, and *bájri* flour are also eaten as a change from wheat, and *juári* forms part of the staple food of the poorer people in the winter months in Duki and Bárkhán.

The use of *landi* or *parsanda* (called *suki boti* by the Khétráns), a kind of biltong is common among the well-to-do classes and also among some of the poorer people. The

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domiciled Hindus also use it. It is generally made of mutton, but occasionally also of goat's meat. Ordinarily a family will kill three to five sheep for making *lándi*, but the well-to-do kill more. Sheep are specially fattened for the purpose, and are killed about the end of October. The carcass is either skinned or the wool is pulled off with the help of an application of boiling water. After the carcass has been singed in the fire, the feet are cut off, and it is cleaned, the stomach is then joined together with green twigs and the body is now divided from neck to tail, the bones of the neck and legs being taken out.

Such meat as adheres to these members is salted and placed in an emptied entrail, and is considered a great delicacy. The carcass is now slashed and thoroughly salted, rolled up and kept for a night to get rid of the moisture in the meat. After being further treated with salt, the meat is hung on a forked pole and exposed to the air, day and night, except in damp weather. It is ready for use in about a month. It is examined from time to time, and more salt and asafœtida are rubbed in, if it shows signs of decomposition. When ready it is cut up and stored in a jar or sheep skin, and is fit for use till March. When required for eating it is boiled in an earthen pot for six hours over a slow fire. It is used once a week or in very cold weather.

Fish are found in Rod and Toi in Músa Khél; Anambár in Bori and Duki, and in the Pui stream, but the tribesmen abstain from eating it.

Nowadays the diet of the well-to-do among the people is becoming civilised; this improvement is more especially noticeable in Duki, Bárkhán and Bori. They drink green tea and *sharbat* made of sugar or molasses and eat rice and fowls. Fresh meat is also procurable in large villages in Bárkhán, and also in the Loralai, Smállan and Duki bazars. Tobacco is used both for smoking and chewing in all parts of the District, more especially by the Afghán tribes, smoking being restricted almost entirely to men.

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Melons, water-melons, grapes, apricots, apples, pomegranates, pears, peaches and figs are eaten when procurable. The wild fruits in use are the *pistacia khanjak*, *shnani* (*Olea cuspidata*), wild almond, *gurgol* (*Zizyphus oxyphylla*), *kirar* (*Capparis aphylla*), *jál* (*Salvadora oleoides*) and *karkanr* or *bér* (*Zizyphus nummularia*). The use of kitchen vegetables is still rare among the indigenous population. But they eat the tender plants of wheat and barley and the following herbs which either grow in fields or in waste lands—*ushnár*, *shézgi*, *pamangi*, *astaghnár*, *khokhai*, *hinjaora*, *raghbolae*, *péwarki*, *kursuke*, *khátol*, *warghi*, *sindián*, *chibar*, *méhal*, *lúnak* and *maréri*. The fruit, roots and tender stems of the dwarf palm plant are also eaten.

Utensils.

The cooking utensils ordinarily in use are few and dirty; they consist of a tripod, a stone or iron griddle, an earthen pot, a few drinking bowls, a wooden plate used both for kneading and eating and a copper can with a spout (*gadwa*). Among the Khétráns, metal pots, plates and cups are used, and these and enamelled cups and saucers are being introduced among the well-to-do families in other parts of the District also.

Dress.

The dress of most of the people is simple and made of coarse cloth (*shoi*) or Indian cotton cloth (*latha*), that of a male costing about Rs. 7-8-0 and of a female Rs. 5.

An average tribesman wears a turban (*patka* or *dastár*), a *landai* which is like a smock frock, *partúk*, *shalwár* or *suthan*—baggy trousers, a long *takrai* or a scarf and a pair of shoes (*kapai* or *chhabba*) or sandals (*tsaplai*). The *shalwár* (trousers) worn by the Kákars of the Bori tahsíl are unusually large and 10 to 40 yards of cloth are used for a pair. To these the poor classes add a *kosae* (felt coat) or *postín* and among the Khétráns a thick cotton wrapper (*dohar*).

Woman's dress.

The women have a wrapper (*sarai*, *tikrai* or *poti*) and a long shift reaching to the knee, the front of which, in the

case of married women, is richly embroidered with silk and sometimes studded with shells. The use of trousers (*suthan*) among the tribeswomen is restricted to Jáfars and Khétráns and to a few women of leading families among other tribes. The Tarín and Shádozai girls wear trousers on the day of their wedding only. The Kákar women, however, wear gaiters (*mási* or *páichas*) which in the case of married women are green or red and of unmarried girls white. POPULATION.

The rise in the standard of living has led to a general improvement in the style of dress among the wealthier classes and the *kosae* and coarse cloth are being gradually replaced by finer Indian piece-goods. Embroidered *lungis*, coats and waistcoats are used by well-to-do people. Better materials are also used for the dress of the women.

Hair. All the tribesmen, except the *mullás* and *tálibs* who shave their heads clean, wear long hair, which falls in curls on either side of the face. A part of the hair of unmarried girls is made into fine plaits over the forehead, and the rest is tied in a single plait at the back. That of the married women is divided by a parting brought round the ear and made into plaits at the back. Among the Khétráns girls and married women tie the back plaits with a red coloured thread (*pandár*) while a widow uses black thread. Females adorn themselves with ornaments such as nose-rings, ear-rings, bangles and necklets. These are made of silver or brass. But among the Mazaránis and other leading families nose-rings and ear-rings made of gold are in use.

Dwellings. In the Músa Khél tahsíl mud huts are rare and the majority of the inhabitants spend a nomadic life, living during the winter in *kizhdis*, and during the summer in *mandav* (temporary shelter made of wooden poles covered with *sargashae* or *lukha* grass) or in *toris* (mats spread over poles). The graziers in other parts of the District such as Dumars, Zakhpéls and Lúnis also spend the winter in *kizhdi* or blanket tents. Many of the cultivators in other parts of the District abandon their villages in the summer and live among

POPULATION. their fields in temporary sheds, some of the Dumars contenting themselves with a *darbalae* or wooden triangle covered over with a blanket or mat. A *kizhdi* is made of goat's hair and generally consists of eleven pieces (*tagái*). The ordinary width of a piece is 3 feet, and the length varies from 15 to 24 feet. Three of these pieces stitched together form the fly, and two stitched together form each of the four side walls. They are stretched over curved wooden poles (*skám*). In winter the side walls are protected against rain and water by a stone or mud wall about 2 feet high, or by a wattle hurdle. In front of the *kizhdi* is a yard fenced in by matting or bushes. Only the well-to-do can afford a separate *kizhdi* for their flocks and cattle. In the centre of the *kizhdi* (*gholai*), the family live, and this part of the abode contains the hearth and platform (*kor*) on which are placed blankets, carpets and spare clothes, and a stand for water skins. In another division (*shpol*) the sheep and goats are folded at night, whilst in a third (*ghojil*) larger animals are tethered. A *kizhdi* costs about Rs. 60 and should last for 10 years. It is waterproof and a favourite type of residence, as it can be moved from place to place as may be necessary. The settled inhabitants of the poorer classes live in mud huts, consisting generally of a single room about 25′ × 20′, those in better circumstances have two such rooms and a verandah. The roof is either flat or sloping and is made of brushwood plastered over with mud. In the western parts of the Bori and the Sanjáwi tahsíls, where juniper trees occur, the roofs are thatched with juniper bark and somewhat resemble English cottages. The huts are generally scattered about in a large area, and in olden days each had a tower for defensive and offensive purposes. The single room is employed for all purposes including use as a cattle shed. The houses of the wealthier classes in Duki and Bárkhán have greatly improved, and consist of several rooms surrounded by a courtyard with separate sheds for cattle, etc. In the latter tahsíl woodwork of a better class is occasionally

imported from Déra Gházi Khán. The villages in Duki and Bárkhán are more compact, and in many cases are enclosed by high walls. POPULATION

Beds of a very rough type are in use, but even these are rare in Músa Khél; lamps are almost unknown, and the household furniture is scanty and consists generally of a few blankets, carpets, quilts, pillows, skins for water and grain, some cooking pots and a hand mill. The well-to-do people in Duki and Bárkhán have more furniture and of better quality.

Disposal of the dead.

The method of burial usual among Muhammadans is in vogue, the body being laid north and south with the head inclined to the west. The *mullá* draws the *kalima* either on the forehead of the corpse or on a piece of pottery or clod which is placed under its head. Among the Khétráns, in digging a grave the first sod should be removed by a shoemaker (*mochi*) and among the Taríns and Shádozais of Duki a *háji*, that is a man who has performed his pilgrimage to Mecca, is required to walk in the grave to purify the ground with his feet. Mourning lasts from three to five days in the case of a person over seven years old, during which time visits of condolence are received and prayers are offered for the soul of the deceased. Relations and friends coming from a distance to condole with the family bring a sheep, or some money, as an offering and are entertained by the bereaved family. Among many of the tribes new clothes are not worn, and no pleasures are indulged in during the period of mourning. Among the Khétráns when a member of the chief's family dies, the near relations place *lungis* on the corpse which are given away to the *mullá*. The mourning in the case of a child under seven years lasts from one to three days. Two stones are generally placed on the grave of a man, one at the head and one at the foot, and three on that of a woman, the third being at the centre. In some parts the graves have two stones, one at the head and the other at foot, which in the case of a man's grave face each other, while in the case

POPULATION. of a woman they are placed in a slanting position. Among the Gharshíns only one stone is placed at the head of a woman's grave. *Shahíds* or martyrs, which term designates men who die for the faith, or are unjustly killed by their own co-religionists, are buried in their ordinary clothes without a bath or a shroud. Long poles (*shanakhta*) are erected over the graves of saintly persons, near and dear relations, and members of leading families among the Kákars and the Péchis and Wanéchis of Sanjáwi. Among the Utmán Khéls, however, every grave has this *shanakhta*.

Amusements and festivals. The only in-door game is the *chaukán* or *bét* which resembles chess and is played by six or eight players. Boys play with knuckle bones (*badai*) and are fond of marbles.

Of out-door games may be mentioned *hénda* resembling prisoner's base, and *tír kamán* (or *linda*) or spear throwing which is practised in Duki and Sanjáwi. The well-to-do classes both shoot and course. Dancing (*lobe*, *jhúmar*, or *hamai*) is popular among men and women on all festive occasions. Among Dumars, Wanéchis and Péchis of Sanjáwi mixed dances were common, but about 12 years ago the *mullás* pronounced the practice to be unlawful and ascribed to it an earthquake which then occurred. Since then mixed dances are rare.

Dáp is a game pecular to Bori which is generally played after the *rabi* harvest. A small ditch is dug, at one end of which is inserted a wooden peg, and from the other end two parties of players hit it with stones. Gambling with shells is sometimes practised in the Bori tahsíl and by Náhars in Bárkhán.

The only festivals of consequence are the two *ids*. Horse races, tent-pegging and shooting at a mark form the amusements on these occasions. The Dumars, Péchis and Wanéchis assemble on the *ids* at Smállan and Púi. The Hindus of Bárkhán visit Bani spring in Shádo Isiáni's village on the 1st of *sánwan*, and the Hindus of Bori hold a fair at Sághri (Bála Dévta) on the occasion of the *wesákhi* and *dewáli* fes-

tivals. The Hindus, both men and women, indulge in dances, and young boys have donkey races.

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Shrines.

Shrines are ubiquitous in the District, almost every village graveyard having a patron saint, who in his lifetime was a village or tribal elder. Reverence for such saints is specially strong among the Kákars. Their shrines consist of little more than a heap of stones, or a rough mud or stone enclosure surrounded by some poles to which rags, horns and metal bells are attached.

Pír Abdul Hakím *alias* Nána Sáhib.

The best known shrine in the District is that of Pír Abdul Hakím, son of Sikandar Sháh, a Shamozai Kákar of Yúsuf Kach in the Pishín tahsíl. He was a contemporary of Sháh Husain, Ghilzai and Nádir Sháh, and it is alleged that he was turned out of Kandahár, where he had gone for religious instruction, by the former. He is credited with many miracles including the stopping of the pistachio trees, which were following him, in the Khojak pass, and the rendering of all the snakes in Toba Achakzai innocuous. At Khánozai, in the Pishín tahsíl, he induced the people to treat his father, Sikandar Sháh, as a saint and contribute to the upkeep of his shrine. In Thal he remained for about six years in the *masjid* (mosque) belonging to the Lasiáni Taríns whose headman at the time was Yúsuf Khán, but the rival of Yúsuf Khán, Jalál Khán, Adwáni Musiáni, annoyed the saint who left the *masjid* cursing the Adwánis. He was sumptuously entertained by Shádo Kibzai, who had lately immigrated to Thal, and the Pír being pleased blessed him. It is alleged that since then Shádo's descendants have prospered in Thal and the Adwánis have lost their former position. The Pír then went to Chotiáli where he died and where his shrine is situated. The shrine is visited not only by the people of the District but by Afgháns from as far afield as Kandahár.

Haro Ana.

The shrine of Haro Ana, a Tehánri lady renowned for her virtue and who lived a *sati* (virgin) all her life, lies four miles from Chautér. A few flags and a wooden shed mark the place. In her lifetime, she was credited with mira-

POPULATION. culous powers and the Wanéchis made her a present of the Kagbi Kach lands which are said to be in the possession of the Tehánris up to this day. On her death-bed she told her relations to bury her body on a spot by which the enemies of the Wanéchis when attacking them had generally to pass, assuring them that their enemies would not attempt to come that way, and if they ever did, they would suffer heavily. After her death, the body was accordingly buried at the western end of Wani, which is since called the Haro Ana Pérai. This place was selected, because the Dumars, with whom the Wanéchis always had feuds, came through Wani. Since then it is said the Wanéchis have always held the upper hand over the Dumars. About 40 years ago, the Dumars raided the Wanéchis in Wani, and carried away a considerable number of cattle. About 200 Wanéchis went in pursuit of the Dumars who were said to be about 1,500. When they reached Haro Ana's shrine they all prayed to her for help. The Wanéchis came upon the Dumars, attacked them, recovered all their cattle, and killed several Dumars.

Pír Sháh Mahmúd. Pír Sháh Mahmúd whose shrine lies in Dathi in the Leghári-Bárkhán circle of the Bárkhán tahsíl was a Sheikh and an inhabitant of Uch. He is credited with having produced water at Dathi and Pharáhi. The Lúnis give to his descendants one sheep per flock every year and the Nánda Náhars one-sixtieth of the produce of their land. The shrine has a *muáfi* of about 30 acres of land.

Minor shrines. The minor shrines in the Bori tahsíl include—Spín Akhunzáda at Khandki; Mullá Khidar Nika at Rodlín; Khalizai Nika at Zangiwál; Hai Nika, a Zakhpél at Drázan; Háji Nika at Uryági; Garandai Nika at Shabozai; Mullá Fateh Akhund and Mullá Rasúl at Wahár; Lala at Marra Tangi; and the Bála Devta of the Hindus at Sághri. In the Sanjáwi tahsíl are those of Mana Nika at Sanjáwi; Kano Nika, the progenitor of the Kanozai Dumars, at Androbi; Guli Nika, Khidarzai-Dumar, in Pitai; Sheikh Khurmuz at Tor Wám; Tan Haidar Pír at Shírín; and Saiad Dur Balél in Púi. In

the Bárkhán tahsíl are the shrines of Pír Lákh at Leghári Kot to whose shrine the Náhars contribute one *topa* of grain per *kharwár* at each harvest, and who is said to have produced water in Sham Balanga Wáli; Pir Lálak Sháh; Kate Wáli; Kabristán Kania Wála at Vitákri; Pír Ghulám Sháh at Shádo Isiáni; Pír Jawánd at Mehrbán Súnman; Pír Akhund near the tahsíl headquarters; Pír Pili Wála at Ali Ján Salaráni; Pír Manglo Wála at Uchri; and Pír Katta at Mama Samand Khán. In the Músa Khél tahsíl are the shrines of Hazrat Dalél at Gargoji; and Háji Habíb Sultán at Drug. POPULATION.

There are also many rag-trees, i.e., trees which for some reason or other come into veneration and get covered with rags. One such tree, the Pír Sharawan, stands on the side of the road, midway between Mékhtar and Tor in the Bori tahsíl. Heaps of stones at various places, more especially at watersheds and tribal boundaries, mark the place where some saint or tribal leader reposed for a while.

Shrines in Déra Gházi Khán District.

The two most important shrines, viz., Sakhi Sarwar and Tounsa which lie within the limits of Déra Ghází Khán, are held in great reverence by the people in the western part of the District and the following account thereof has been extracted from the *Gazetteer of Déra Ghází Khán* (1893—97):—

Sakhi Sarwar.

Sakhi Sarwar, the Lakhdáta of the Western Punjab, is said to have been the son of Hazrat Zénabuldín (Zainul-ábedín) who migrated from Baghdád and settled at Siálkot, 12 miles east of Multán, in 650 A.H. (1220 A.D.) Hazrat Zénabuldín had two sons: one was Saidi Ahmad, afterwards known as Sakhi Sarwar; the other was Khán Doda, who died at Baghdád, and was not famous. There is a shrine to him between Déra Ghází Khán and Sakhi Sarwar, at a place called Vador

Saidi Ahmad studied at Lahore, and from there went to Dhokal, near Wazírábád in the Gujrát District. Whilst at Dhokal* he saw a mare, the property of a carpenter, and

* Dhraunkal. (It is now in the Gujránwála District.)

POPULATION. asked the carpenter for it. The carpenter denied having a mare, whereupon Saidi Ahmad called to the mare, and it came up to him of its own accord. Saidi Ahmad then told the carpenter to sink a well, which he did, and the descendants of the carpenter are the guardians of the well, at which a fair is held every year in June to Sakhi Sarwar's honour. After this Saidi Ahmad, by his father's order, went to reside at the foot of the Sulaimán range, and settled at the place now called after him. Shortly after retiring into the desert Saidi Ahmad performed another miracle. A camel belonging to a caravan, which was going from Khurásán to Delhi, broke its leg. The leader of the caravan applied to Saidi Ahmad, who told him to return to where he had left the camel and he would find it sound. The merchant did as he was directed, and was rewarded by finding his camel recovered. On arriving at Delhi, the merchant published the miracle and the Emperor heard of it. The Emperor, anxious to inquire into the miracle, sent for the camel and had it killed. The leg was examined and found to have been mended with rivets. The Emperor, convinced of the miracle, sent four mule loads of money to Saidi Ahmad, and told him to build himself a house. Sakhi Sarwar shrine was built with this money. One Gannu of Multán now gave his daughter in marriage to Saidi Ahmad, who had miraculously caused two sons to be born to him. Gannu endowed his daughter with all his property, and it was for his generosity in distributing this property to the poor that Saidi Ahmad obtained the name of Sakhi Sarwar, or the bountiful lord or chief. Sakhi Sarwar now visited Baghdád; on his return he was accompanied by three disciples whose tombs are shown on a low hill near Sakhi Sarwar.

The present guardians of the Sakhi Sarwar shrine are the descendants of three servants of Gannu, who attached themselves to Sakhi Sarwar. These were Kulung, Kahin, and Shekh. Sákhi Sarwar limited the number of descendants of these three men to 1,650 which number has been

strictly observed ever since. All the offerings made at the shrine are divided into 1,650 shares, and it is said to be a fact that there are never more nor less than 1,650 *mujáwars* or descendants of the three original keepers of the shrine. * * * * It is not however a fact that there are never more nor less than 1,650 *mujáwars*. One of the chief peculiarities of the shrine is that it is venerated equally by Hindus and by Muhammadans. The shrine is built on the high banks of a hill stream, and a handsome flight of steps leads up from the bed of the stream to the shrine. These steps were built at the expense of two Hindu merchants of Lahore. The buildings of the shrine consist of Sakhi Sarwar's tomb on the west, and a shrine to Bába Nának on the north-west. On the east is the tomb of Musammát Bíbi Bhai, wife of Sakhi Sarwar and a *thákurdwára*. The shrine of Sakhi Sarwar is thus a curious mixture of Muhammadan and Hindu architecture. Díwán Sáwan Mal endeavoured to stop Hindus from frequenting Sakhi Sarwar and fined all who attended at the fair Re. 1-4-0 each. In 1883 the shrine was destroyed by fire and two rubies presented by Nádir Sháh, and some valuable jewels presented by Sultán Zamán Sháh were consumed or lost. It has since then been rebuilt.

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The Tounsa shrine.

The shrine of Muhammad Sulimán Sháh, who was a Jáfar by birth, lies at Tounsa commonly known as Tounsa Sharíf or holy Tounsa. This is the handsomest shrine in the District. It was built by the Nawáb of Baháwalpur in 1272 A.H. as a mausoleum to Sulimán Khán, his Pír or spiritual guide, whose tomb it contains, at a cost of Rs. 85,000. A dwelling house round the shrine was built by Ghulám Mustafa of Multán at a cost of Rs. 10,000. There is also a *tykhána* or underground dwelling place and a *serai* which cost Rs. 33,000. Sulimán Khán belonged to the small Pathán tribe called Jáfar inhabiting Drug in the upper valley of the Sangarh, and his descendants came and

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Names and titles. Both among girls and boys many names are to be found, which are possibly of totemistic origin. They are those of animals, plants and fruits and references to colour such as *zarghún*, green, *nilai*, bay, *samand*, dun, are frequent. In other cases the denominations used for men are those usual among Muhammadans, while in the case of women, names beginning or ending with Bíbi or Náz or expressive of value or quality are popular, such as Bakht Bíbi, Bíbi Maryam, Máh Náz or Náz Bíbi, Gulbashra (flower-faced), Máhru (moon-faced,) Zartola (golden) and Názuka (delicate), etc.

Shortened forms of the long names given to men, such as Táju for Táj Muhammad, Akbar for Muhammad Akbar, Píro for Pír Muhammad, etc., are frequently used. Among the Mazaráni Khétráns of Bárkhán and the Spín Taríns of Duki names of the grand parents are sometimes given to the children of both sexes. Among the domiciled Hindus abbreviated names are much used both for boys and girls. POPULATION

Though a girl is a valuable asset in an Afghán family, no ceremonies are observed on her birth. She is named by the mother or some female relative. The birth of a son is announced thrice by the women attending the mother or by some female relatives, and among the Sanzar Khél the woman shouts thrice at the top of her voice "*kánro búto wárvai da faláni zoe wo so*" which means "ye stones and plants listen that a son has been born to a certain (naming the father) person." Guns are then fired and there are general rejoicings. The boy is named on the third day, after consultation with the *mullá*. Among Khétráns the boy is sometimes named after a respectable guest—*náthi*—who happens to be present at the time of the birth. Among wealthy people, the person who conveys the first news to the father is given a present. The ceremony of circumcision generally takes place before the seventh birthday, and it is a curious fact that among the Gharshín Saiads, the Jáfars and the Khétráns the girls are also circumcised between the ages of 4 to 7.

In stating his name a man will generally add that of the sub-section, section, clan and tribe to which he belongs. The term *Khán* is used both as a suffix and prefix, and in the latter case is considered as a mark of honour among the Afgháns. The term *malik* is applied among the Afgháns not only to village headmen, but also to large landowners and men of influence. Strictly speaking the term *sardár* is confined to the chiefs of the Khétrán, Lúni and the two divisions (Laharzai and Bél Khél) of the Músa Khél tribes, but it is commonly applied by the Dumars and others to

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Among the titles possessing a religious significance may be mentioned the prefix *míra* or *sháh sáhib* employed by Saiads, *sheikh* is also sometimes used in a similar sense. The terms *mullá* and *tálib* are applied to men who have some pretensions to religious learning, the latter being applied to those who are still under religious instruction.

Rules of honour.

A knowledge of the rules of honour (*mayár*) which prevailed among the people before the British occupation and which still influence the actions of many of them is not without importance from the point of view of administration, and a short reference may be made to them here. They are gradually giving way before British law and order.

It was incumbent on a tribesman—

(1) To avenge blood.

(2) To fight to the death for a person who had taken refuge with him. The refugee was called *hamsáyah* and was always maintained by his protector so long as he remained under the latter's roof. Such protection was also extended to adulterers and murderers.

(3) To defend to the last, property entrusted to him. Among the Dumars of Sanjáwi and the tribes of Duki the loss was made good.

(4) To be hospitable and to provide for the safety of the person and property of the guest. Responsibility for the property of a guest does not appear to have been undertaken by the tribes in the Bori and the Músa Khél tahsíls; but a Dumar of Sanjáwi or a tribesman in Duki was bound to recoup any loss.

(5) To refrain from killing a woman, a Hindu, a minstrel, or a boy who had not taken to trousers. But the Músa Khéls and Isots did not spare a blacksmith, carpenter, etc.,

who took part in a fight. Similarly a *dúm* or minstrel taking part in tribal warfare was not spared in Duki and Bárkhán. POPULATION.

(6) To pardon an offence on the intercession of a woman of the offender's family. But an exception was generally made in the case of an adulterer or murderer, whose life was spared and the matter compromised by the payment of compensation.

(7) To refrain from killing a man who had entered the shrine of a *pír*, so long as he remained within its precincts; and also a man who, whilst fighting, begged for quarter with grass in his mouth, or a cloth round his neck. The Músa Khéls and Isots did not refrain from injuring an offender who took refuge in a shrine.

(8) To cease fighting when a *mullá*, a Saiad or a woman bearing the Korán on his or her head intervened between the parties.

(9) To punish an adulterer with death or by cutting off his ears and nose.

System of reprisals.

In pre-British days, blood had to be avenged by blood, if the parties were of equal position and influence; but if the relatives of the person killed were weak, the matter was compromised by the payment of compensation. In cases in which the parties belonged to the same tribe, and the offender himself was out of reach, his nearest relation, viz., his brother, father or cousin was slain. If, however, the offender belonged to another tribe, it was incumbent on the aggrieved party to kill one of the section, clan or tribe to which the former belonged. Among Zarkúns, however, the revenge was strictly confined to the murderer himself. Such a system was liable to indefinite extension and led to interminable blood feuds which continued until either the authorities or friends intervened to arbitrate. In such cases the losses on either side were reckoned up and compensation was paid to the side which had lost most.

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Blood compensation.

Might was right in days gone by and the position of the party aggrieved was the principal factor in determining the price to be paid for blood; hence the compensation for a *mullá*, a Saiad or a person belonging to a *sardár khél* or leading family was generally more than that payable for a tribesman.

The ordinary rate of compensation at present among the Sanzar Khél Kákars is from Rs. 600 to Rs. 1,200 and four girls including two *náházar*, i.e., to be given when born; Músa Khéls, Rs. 700; Jáfars, Isots and Zamarais, Rs. 500; Wanéchis, Rs. 700; the Taríns and Shádozai of Duki, Rs. 1,000 and two girls; Zarkúns of Duki, Rs. 500, one girl, one sword and one gun; Lúnis, Rs. 1,000 and four girls; Dumar, Zakhpél, and Péchi Saiads, Rs. 1,200; the Gharshín Saiads, Rs. 1,500, but a case is known in which a Buzdár Baloch was made to pay Rs. 4,800 for the murder of a Gharshín; and the Khétráns, Rs. 1,300, and two girls. The loss of an eye or arm counts among the tribes as equivalent to half or one-third of a life, the compensation varying from Rs. 100 or a girl to Rs. 500 and that for a tooth varies from Rs. 20 to Rs. 100.

Afghán refugees.

There are five families of Afghán refugees, who permanently reside in the Bori tahsíl of the District, and who are in receipt of allowances from Government. Of these two are Tarak, one Andar, and two Hotak Ghilzais. Some of them have acquired landed property at Khandki, Dirgi Kudézai and Murtat Kalán. The principal men among them are (1905)—Sardár Muhammad Sháh Khán and Shér Muhammad Khán Hotak, Yár Muhammd Khán Andar, and Báz Muhammad Khán Tarak.

CHAPTER II.

ECONOMIC.

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General conditions.

The two dominant factors which present themselves, when considering the general conditions under which agriculture can be carried on in the Loralai District, are the presence of mountainous tracts, which can never be made capable of cultivation, and the absolute necessity of perennial irrigation to ensure a harvest. A large part of the cultivable area, moreover, consists of land, which is incapable of permanent irrigation, and entirely depends on rainfall. Cultivation is, therefore, sporadic and dependence on anything but permanently irrigated land is precarious. The largest dry crop tracts in the District include *Khushkába* Rabát, Karáí, Sharana and Sagar in the Duki tahsíl; Kharáshang and Saláms in Sanjáwi; Mékhtar, Barad, Náli Zara, Náli Azam, Náli Mallazai, Dargi Wut, Dargi Shapélu, Nashpa, Kashki Nas Khél, Dámán and Lohrai in Bori; Rári, Gatsar, Dág Jalál Khán, Tor Dág and Gadar Aghbarg in the Kingri circle; Réj Khedráni and Réj Umráni in the Drug circle; Zawar, Paramzai, Zari, Sarakhwa, Pasbandi, Náli Sargand, Wáh, Nakhal and *Khushkába* Bráhímzai in Sahara in the Músa Khél tahsíl; the Káchhar and Díka in Rakhni, Gulu Dámán in Rarkan, Kach and Tah Jamál in Bagháo, Shábo in Chúhar Kot, and Berbani, Biháni, Kharra, Sadar, Bágar, Tatar, Bohri and Drugráj in Leghári Bárkhán, in the Bárkhán tahsíl.

Soils.

No scientific analyses of the soil in various parts of the District have been made. The soil of the Bori valley consists of a reddish loam and is highly productive if properly cultivated. In Duki a pale grey loess occurs; elsewhere extensive gravel deposits are to be found mixed occasionally with tracts of good cultivable red clay. In 1896, Lieutenant L. A. Forbes, then Assistant Political Agent at Duki in

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his report on the distribution of assessment in various villages in Sanjáwi wrote as follows :—

"There are, nevertheless, great differences between the soils of these villages. In only a few villages has the soil been improved by artificial means. As a rule only the land quite close to the homestead is well manured. The naturally most productive land is found in the *mauza* of Aghbarg. Next in order of precedence may be placed the villages in the tracts known as Bagháo and Shinléz in which the land has been raised to a high level of fertility by means of manuring and labour. After these, the remaining *mauzas* may be classed together exclusive of the hill villages of Chautér, Shírín, Ghunz and Wani which possess very inferior soil."

In the course of the Sanjáwi Settlement (1899-1900) irrigable land was, for purposes of assessment, divided according to its quality into three descriptions, viz., first, second and third. These again were sub-divided according to their capacity for bearing crops in a period of years and the classification thus made divided the land as under—double cropped; garden, and three crops in two years; single cropped; one crop in two years and other *ábi*, i.e., less than one crop in two years. The Settlement Officer found that "lands in Bagháo, Sanjáwi and Smállan are of good quality and yield every kind of produce, but the Púi circle (with the exception of *mauza* Púi itself) has inferior soil." The cultivators base their classification on the most obvious properties of the soil. The following statement shows the principal kinds of soil locally recognised in each tahsíl :—

Tahsíl.	Local name of soil.	Explanation.	Localities where it generally occurs.	Crops for which generally suited.
Bori ...	Spín ...	White loam	Dry crop tracts in Mékhtar, irrigable area in Wahár and Sadar circles.	All crops.
	Sra ...	Red loam...	Náli Azam and Sradarga in Mékhtar.	Wheat and maize.

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Tahsíl.	Local name of soil.	Explanation.	Localities where it generally occurs.	Crops for which generally suited.
Bori—*contd.*	Shínkhar...	Dark bluish	Sadar and Wahár circles.	Wheat and maize.
	Raghan ...	Gravelly ...	Western circle ...	Wheat, barley and maize.
	Sharah ...	Saline, and inferior soil.	Wahár circle ...	*Azhdan* and barley.
Sanjáwi.	Kharína ...	Soft red containing silt or *mat*.	Near hill torrents	Wheat and maize.
	Shín lakan	Dark bluish	Bagháo, Sanjáwi and Smállan.	Wheat.
	Sagana ...	Sandy loam.	Near hill torrents	Wheat and *mung*.
	Dabarlína	Gravelly ...	Smállan and Púi	Wheat, *mung* and *azhdan*.
Duki ...	Khozha ...	Sweet soil	Lúni, Thal and Duki.	All crops.
	Shíngandh,	Dark bluish	Thal	Only wheat when sufficiently irrigated.
	Sagana ...	Sandy soil	Lúni and Thal ...	Wheat when irrigated.
	Ghilan ...	Gravelly ...	Lákhi and Duki	All crops.
	Tirkha ...	Saline ...	Lúni and Thal ...	Rice and barley.
Bárkhán	Matti ...	Containing *mat* or silt.	Chúhar Kot, Rarkan and Bagháo.	Wheat.
	Níli matti...	Dark bluish, sweet.	Leghári Bárkhán, and Chacha.	*Juári*.
	Nalchhíri, rohli or watkar.	Containing gravel and sand.	Isiáni, Chúhar Kot, Rakhni and parts of Leghári Bárkhán.	*Juári* and wheat.
	Níli tursh,	Dark bluish saline.	Unfit for cultivation.	...
Músa Khé.	Lasai or Súrkhaurai.	Soft red, containing silt or *mat*.	Kingri circle and the Sahara valley.	Wheat, *juári* and *bájri*.
	Tor khaurai	Dark hard loam.	Drug and Rára Sham.	Wheat and maize.
	Sagai ...	Sandy loam.	Rod Kingri and Rod Karhér.	*Mung*.
	Zhaghalína.	Gravelly ...	Drug circle ...	*Mung*.
	Návrína mzakka.	Artificial made by putting earth on rocky ground.	Sali in Toisar, Nishpa, Kaiwahán in Drug.	Barley and maize.
	Tarkhbandae	Saline ...	Sanghar hills, Rod Srin, Mirzai and Toi.	Barley and *azhdan*.

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Rainfall and system of cultivation in relation thereto.

The rainfall is light, the annual average being about 7 inches. In the western parts of the District both summer and winter rain, and also some snow are received. The rest of the District depends chiefly on the summer rainfall which everywhere exceeds that in winter; the south-eastern parts of the District round Bárkhán probably receive a heavier rainfall than elsewhere. The average rainfall at Loralai during the 12 years ending 1904 was 8·21, and at Duki for 4 years ending 1904, 6·75. Rainfall statistics for other places are not available. July and August are the rainiest months during the summer, in the Bárkhán tahsíl, while in Duki and Loralai the rainfall in March is largest during the winter months. A good rainfall naturally affects not only the amount of rain crop cultivation but also the irrigated land, and the springs, streams and *kárézes* which supply the water for irrigation. To the flock-owner it is of great advantage and provides abundant pasture for his flocks. After the summer rainfall, these sources of perennial water maintain a fair supply and they are replenished by the rainfall in the spring. The rainfall received between June and August is utilised by reserving the moisture in the ground for sowing the spring crops in the autumn, and with its help the autumn harvest is matured by the rain received in August and September. On the higher elevations round Sanjáwi, the rainfall of June and July matures the autumn harvest sown during the spring. The rainfall between December and March is beneficial to the spring crops sown in the previous autumn both in irrigated and unirrigated land. In Bárkhán where the climate is warmer, the rainfall is timely for spring crops only if received not later than February or the middle of March at the latest. Moisture is also reserved, in Sanjáwi and Bori, after the spring rains in April and May for sowing the autumn crops in dry tracts, and these rains also benefit the irrigated spring crops, while wheat in unirrigated land largely depends on them For purposes of dry crop cultiva-

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tion the lands are embanked, the cultivated plots being known as *bands*. These *bands* are filled with rain or flood water in the summer or winter, after which they are ploughed and the seed is sown. When moisture is to be retained for a crop to be sown later, as is the case for the spring crops, after the summer rains the land is ploughed deep and harrowed smooth.

Irrigated and unirrigated areas in the District and sources of irrigation.

Table V, Vol. B, shows the irrigated and unirrigated villages in the District by tahsíls, together with their sources of irrigation. Of the 496 villages, 189 are wholly irrigated, 108 are partially irrigated, 167 depend on flood water, while 32 have no permanent source of irrigation.

Details of culturable and irrigable areas with their sources of irrigation in the Bori and Sanjáwi tahsíls, which have been surveyed, are given in table VI, Vol. B. The following abstract shows the areas in 1904-5 :—

Tahsíl.	Total area surveyed.	Uncultivated.	Cultivable.	Irrigable.	Khushkába.
	Acres.	Acres.	Acres.	Acres.	Acres.
Sanjáwi ...	24,399	16,502	7,897	7,673	224*
Bori ...	143,427	95,226	48,201	36,025	12,176
Total ...	167,826	111,728	56,098	43,698	12,400

Population dependent on agriculture.

With the exception of the domiciled Hindus who are engaged in trade, the bulk of the indigenous population is dependent on agriculture, but a large number of the Laharzai Músá Khéls, and a few other sections of Afgháns greatly depend on flock-owning. The land-owners are generally, themselves, the tillers of the soil. The best cultivators are the Shabozai and Kudézai Sanzar Khéls in Bori; the Taríns and Ustránas in Duki; the Jáfars of Músa Khél; and the Mazaráni Khétráns and Náhars in Bárkhán. The Dumars of Sanjáwi are indifferent husbandmen.

* Does not include about 11,520 acres in Bagháo and 9,600 acres in Púi which were not surveyed.

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Sowing and harvest times.

Two principal harvests are recognised—the spring harvest which is known as *dobae* among Afghâns and *ahár* among the Khétráns, and the autumn harvest called *mané* by Afgháns and *sarya* by the Khétráns. Among the revenue officials these harvests are known, as in India, by the names of *rabi* and *kharíf* respectively. The *rabi* includes the crops sown between October and January and reaped by the end of June, while the *kharíf* includes the crops sown from April to August and harvested by the middle of November. The sowing and harvesting operations vary slightly with the climate in different parts. Round Sanjáwi and in the western circle of Bori which are colder, the *rabi* sowings extend to February but are ordinarily finished by the middle of January, and the harvest lasts from June to July. On the other hand, in Bárkhán, and the Drug circle of the Músa Khél tahsíl where the climate is much warmer, *rabi* sowings commence in the end of September and last till the middle of January; the harvest begins in April and is finished by the end of May. The times of sowing and harvesting the autumn crops are almost uniform everywhere. In Bárkhán, however, some of the autumn crops, such as *chína* are ready for harvest in June, others follow in September and October, while the *juári*, the principal autumn crop, is harvested from the middle of September to the middle of November.

The following are the chief crops produced at the two principal harvests :—

Rabi.	Kharíf.
Wheat (*Triticum sativum*). Barley (*Hordeum vulgare*).	Maize (*Zea mays*). *Juári* (*Andropogon sorghum*). *Bájri* (*Pennisetum typhoideum*). Rice (*Oryza sativa*). *Azhdan* or *chína* (*Panicum miliaceum*). *Ghosht* (*Panicum Italicum*). *Mung* (*Phaseolus mungo*). Tobacco (*Nicotiana tabacum*).

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In addition to the above, other crops cultivated in the District are—*moth* (only in Bárkhán), *pálézát* (*cucurbita*), and vegetables comprising carrots, onions, potatoes, coriander and chillies, all being included in the autumn harvest. Of fodder crops only lucerne (*Medicago sativa*) is cultivated, and is classified as a *kharíf* crop. The amount of cultivation of all the above crops, except in the case of *pálézát*, is insignificant.

Table VII, Vol. B, gives the details for a few years of the areas under the different kinds of crops in the tahsíls which have been surveyed. In the Sanjáwi tahsíl the area under crops in 1904-5 amounted to 4,115 acres—2,541 acres under *rabi*, 1,526 acres under *kharíf* and 48 acres under gardens—the areas under principal crops being wheat 2,230 acres, maize 1,257 acres and tobacco 147 acres.

In the Bori tahsíl the area under crops in the same year was 15,434 acres including 96 acres under gardens; the *rabi* crops covered 12,151 acres and included 11,003 acres under wheat, 1,148 acres under barley, while there were 3,187 acres under *kharíf* including 1,775 acres maize, 922 acres *juári* and 142 acres *pálézát*.

Figures for areas under different crops in other tahsíls are not available, but the revenue returns indicate that the largest portion of cultivated area falls under wheat and *juári* except in Músa Khél where maize takes the place of *juári*. The annual average Government revenue for the five years ending March 1905 was as follows :—

	Duki.	Bárkhán.	Músa Khél.
	Maunds.	Maunds.	Maunds.
Wheat	16,312	12,683	2,579
Juári	1,839	3,385	335

Staple food grains. Wheat.

Several kinds of wheat are grown in the District, the most common ones being the *spín ghanam* or white, and *sra ghanam* or red wheat; the former is cultivated in *khushkába* and the latter in irrigated land. Besides

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these two varieties, two others are known in Músa Khél, the *kundi ghanam* and *málav ghanam*, the seed of the former having been imported from the Dámán in the Déraját. The seed of the *málav ghanam* is said to have been imported from the Kohát District in the North-West Frontier Province and is cultivated in irrigated lands in the Gargoji, Nath and Gabar villages of the Drug circle.

Irrigated land.

Early in the spring, after the rains, the land to be tilled is ploughed over once, the first ploughing being called *mála*, *shudyára* or *khéri*. After the summer rains (*wasa*) the land is again ploughed twice and harrowed smooth. In October the land is manured, if possible, and the seed is sown broadcast (*pargúna*, *chhat* or *muthwára*), generally in dry land which is ploughed and harrowed and subsequently irrigated. Such cultivation is known as *sama khák*.

In Sanjáwi and in parts of Duki, however, the land is watered previous to sowing, while in Músa Khél, such fields as contain a growth of *jaudar*, are similarly treated. When the surface of the soil has dried and has assumed a whitish appearance, the seed is sown by drill (*náli*) and the ground is then ploughed and harrowed. In Bárkhán a drill known as *narthothi* is used, in cases where the moisture has sunk deep.

After two or three days, the land which has been sown is divided into small beds (*kurdae*), separated by small embankments (*púla*), which are made with the *dal*.

For the cultivation of wheat the land must be well prepared and has to be ploughed several times before sowing the seed. The number of these ploughings varies from two to four and even ten in some villages in the Drug circle of the Músa Khél tahsíl.

Wheat sown in the early autumn sprouts in 7 or 8 days; that sown in November sprouts in 15 or 20 days, and that sown in December and later comes up in about a month; the sprouts being known as *zúka* or *zukra*.

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Irrigation depends upon the sources of water-supply, and the amount of water possessed by individuals. The first watering (*sama khāka*, *pānipur* or *phea*) takes place as soon as possible after sowing, in the case of *sama khāk* cultivation. Under the other system, viz., that in which the seed is sown after first watering the land (*nāwa*), irrigation takes place when the crop shows above the ground. The second watering follows about a fortnight later. After the second watering the crop, except in Bárkhán, generally requires no further irrigation for about two months, on account of rains during January and February, but about the middle of March a third watering is given. Up to this time the wheat is browsed by goats, sheep and horses, and this causes the plants to spread. Subsequent waterings take place at intervals of 15 to 20 days, but must not be delayed for more than a month, till maturity. In Sanjáwi, irrigation is done at intervals of 7 or 10 days, and in Bori twice during the month. In Bárkhán, after December, irrigation takes place twice during the month. In March and April if an easterly wind (*purkho*) blows on rainy days, the crop is attacked by rust (*surkhi*) known in Bori as *zranrae* but the westerly wind (*barvo*) is beneficial at this time. A curious remedy adopted by the cultivators in Bori and Sanjáwi is to keep a piece of felt soaked in the blood of a sheep slaughtered on the *loe id*; on the appearance of rust the piece of felt is placed at the mouth of the water channel, and is believed to benefit the crop attacked by rust. In years of drought, an insect resembling a white-ant (*kora*) eats up the roots of the wheat crop in Bárkhán. Sometimes cold winds damage the crop during the spring, the crop so affected being known as *bád wahalli*; the stalks and grain both wither. In Duki the north wind called *zhobi* damages the crop in the same way, while a green insect (*shín*), which is caused by over-irrigation by flood water, eats up the roots. When the crop is fully ripe (*zhar*) it is cut (*lao*) by both men and women and collected into a heap (*dalai*). In Músa Khél the wheat

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of the *málav* variety is harvested from the top, and the stalks, which are rough and useless as fodder, are burnt. Threshing (*ghobal*) is done in the ordinary way by bullocks; a long pole is placed in the ground in the centre of the threshing-floor, and bullocks are driven round it to tread out the grain. Among the Utmán Khéls and Arabi Khéls of Bori and the Khétráns of Bárkhán threshing is done by means of the *tsapar*. A bush covered hurdle and bullocks are used, the hurdle being driven over the corn and the grain being extracted both by the pressure of the hurdle and of the bullocks' feet. Winnowing is done first by the four-pronged fork (*chárshákha*) and then by the *trapae*, a wooden spade. The cleaned heap of grain (*riása*) known to the Khétráns as *khillán*, is then divided.

Dry crop cultivation.

Dry crop land cultivation is known to the Afgháns as *wachobi* or *khushkáva** and to the Khétráns as *dewápáni* or *dhaulapáni*. The method of cultivation is simple. Embankments of fields are repaired in June and July and if filled with rain or flood water they are ploughed once or twice and harrowed smooth in August and September. In the Músa Khél Sahara the land is manured and ploughed twice or thrice either in April or in July and August and the seed is sown subsequently. The sowing season extends from September to the end of February. The seed is generally sown by drill (*nálai* or *narthothi*) except in Sanjáwi where it is also sown broadcast; in Bori and Músa Khél broadcast sowings take place in October and November, if rains have fallen up to the end of the season. The crop sown in the beginning of the season is known as *zárat* and that sown late is called *bobazh*. Dry crop wheat matures with the help of the winter and spring rains, those of March and April being very beneficial. On the higher elevations round Sanjáwi, the rainfall in May matures the *khushkába* crop in Púi and other places having a colder climate. As already stated, the crop ripens earlier in Bárkhán and later in Sanjáwi than other parts of the District.

* Also called khushkába.

Except in the Bori tahsíl the cultivation of barley is comparatively small, being insignificant in Bárkhán, and is largely confined to irrigated lands. The method of cultivation resembles that of wheat, but the land requires comparatively less preparation. The sowing season lasts from November to the end of December. The seed is sown broadcast. The crop is ready for harvest in May, and in Sanjáwi in June. In Músa Khél a variety of barley, which has a naked grain and the ear of which is beardless, has been introduced since the British occupation. The people state that the seed was imported from Mecca.

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Barley.

Maize.

Maize is known as *badaghar juári* or *makayán*. In Músa Khél it is known as *duzár*. It is cultivated in all parts of the District, but in very small quantity in Bárkhán, and is almost exclusively confined to irrigated lands. It is of two kinds, white or *spín* and yellow or *zhar*. The *spín* has a long ear and a large grain, and is cultivated in irrigated lands. It is sown earlier. The *zhar* is a smaller plant with a smaller ear, and is sown both in irrigated and unirrigated land. The sowing season lasts from June to August. The usual method of cultivation is as follows:—

After cutting the wheat crop, the stalks left in the ground are burnt, the land is then ploughed and manured, and again twice ploughed and harrowed. Before sowing, the land is watered. When the surface dries and assumes a whitish appearance, the seed is scattered broadcast and ploughed in, the ground being afterwards harrowed smooth. It is then divided into plots for purposes of irrigation. The seed germinates in four or five days. At this stage the plants are sometimes attacked by an insect especially in manured fields, but immediate watering kills them. Ordinarily the first watering after sowing takes place in about a month; the second, ten or fifteen days later and subsequent waterings at similar intervals, if possible. The second watering, if delayed, causes damage to the plants. The crop is in ear in August and September. At this time the

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plants are sometimes affected by a caterpillar known as *larama*, but immediate watering kills them. In Músa Khél, the *khurda* or dust from the shrine of Háji Habíb Sultán is brought and sprinkled in the fields.

About a fortnight later the grain begins to form in the ears and the crop is known as *shíra*; it ripens at the end of September and is harvested by the middle of November, the operations being in full swing in the month of October. The ears are separated from the stalks, and when dried are either beaten with sticks or threshed by bullocks. All are fond of parching and eating the ears, when the grain has just formed. The ripe grain is cooked into a porridge (*ogra*) or is boiled (*kohal*). The flour is used for making cakes.

Dry crop cultivation.

The system of dry crop cultivation resembles that in irrigated lands. After the spring rains the land is ploughed once or twice and is harrowed. The seed is sown broadcast after the summer rainfall, and the land is again ploughed and harrowed smooth. If the summer rains fail, the seed is sown sometimes by drill in the moisture reserved during the spring. The crop requires irrigation in August and September.

Juári.

Juári (*Andropogon sorghum*) when distinguished from maize is known by the Afgháns as *targhari juári*. Two varieties are cultivated in Bori and Músa Khél, viz., *spín* or white and *khargae* or brownish. The *spín* has a well set-in ear and is more widely cultivated. The sowing commences usually in June and lasts till the end of July. The method of cultivation resembles that of maize; the land is previously ploughed, the seed is sown broadcast and the land is again ploughed and harrowed. Water spared from wheat is utilised for irrigation. About a fortnight after the seed has germinated, the crop is irrigated, the second watering taking place after a similar interval. To reach maturity the crop requires irrigation in August and September. An insect of the species of grasshopper known as *tattu* sometimes damages the irrigated crops. The harvest lasts from September

to the middle of November. The ears are cut and the stalks (*karab*) are generally left in the ground except in seasons of scarcity when the stalks are also cut and used as fodder. *Juári* sown as green fodder (*ganálai*) is cut before it is in the ear.

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Dry crop cultivation

The cultivation of *juári* generally takes place in unirrigated land. The embankments are prepared in March, and the land, after it has been filled with rain or flood water, is ploughed deep and harrowed smooth to retain the moisture. The seed is sown by drill during May. In Bárkhán, after the rains in June, the seed is sown broadcast and the land is ploughed once or twice and then harrowed. Elsewhere, too, if the rains fall late in June and July, the seed is sown broadcast. The unirrigated crop depends on the rains of July and August. Absence of rains between the 20th of August and the 10th of September makes the crop liable to damage by a worm called *larama*, but timely rains destroy the worm. In Bárkhán duststorms between August and October, and failure of rain, produce an insect called *kutti* which eats up the ears, and the crop so affected if eaten by animals causes cough. Frosts (*pála*) sometimes damage the crop in the autumn. The crop begins to ripen in September and is harvested by the middle of November. Green stalks of *juári* (*khozh ganae*) are very succulent and are eaten by the natives. *Juári* cakes are known as *piátsa* and are eaten with whey.

Bájri.

The cultivation of *bájri* (*Pennisetum typhoideum*) resembles in every way that of *juári*. The crop is sown and harvested simultaneously with *juári*. It is grown both on irrigated and unirrigated land, but the cultivation is confined to the three tahsíls of Bárkhán, Músa Khél and Duki.

Rice.

Rice is cultivated in all tahsíls except Bárkhán, but the cultivation is insignificant except perhaps in Bori and Músa Khél. In the latter tahsíl rice is cultivated only on the Rod-i-Toi in the villages of Toi and Plásín. The variety

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sown is known as *sre wrízi* and has a reddish grain. Sowing takes place in June and July. The land is ploughed and the plots are flooded the following day. The field remains filled with water for four or five days when it is ploughed. Three or four bullock loads of *spánda* (*Peganum harmala*) and *khamazúrai* (*Withania coagulans*) are put in each plot and trampled under foot by bullocks. The mud is then disturbed with the hands and feet; and the plots are again filled with water and left for a night. The following morning the seed which has previously been put in a bag and soaked in water for from five to ten days and has germinated is sprinkled in the field. Ordinarily each plot is divided into four parts by lines of reeds (*sarghasi*), each small plot being sown in succession so that the seed may be distributed in all parts equally. The reeds are removed after the seed has been sown. Three or four days after sowing, the field is irrigated and henceforward the plots must remain filled with water till the crop has ripened. Weeding (*lahún*) is done ordinarily every week. The crop ripens in September and October; irrigation is now stopped and harvesting is done when the moisture in the field has been sufficiently absorbed. Bundles of the harvested crop are taken to the threshing-floor and placed with their tops upwards. When dry, threshing is done by bullocks and the stalks (*nár*) are separated. A disease known as *tor-ranz* sometimes attacks the rice crop on account of over-irrigation by flood water impregnated with silt. The stalks become black and no grain is formed. No remedy is known.

Millets.

Millets comprise two varieties, viz., *azhdan* or *chína* (*Panicum miliaceum*) and *kangni* or *ghosht* (*Panicum Italicum*). The amount of cultivation of the latter is insignificant. After the land has been irrigated, the seed is sown broadcast and the land ploughed but not harrowed. *Kangni* is cultivated only in irrigated lands. *Azhdan* is hardy and grows well even with little moisture; the cultivation is, therefore, largely done in unirrigated land, and

sometimes in irrigated land which is not manured. Sowing is commenced after the rains in June, the operations lasting during July and August. In Bárkhán the crop is sown between the middle of April and end of June. It ripens in about three months. Threshing is done on the same day as the crop is cut. Boiling water put over the harvested bundles prior to their being threshed accelerates the removal of grain from the ears. The stalks of *azhdan* (*paláha*) and *kangni* (*kanganr*) form a poor fodder. The grain is used for cakes. Porridge (*ogra*) is made of *kangni*.

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Mung.

Mung is grown commonly on unirrigated land. The sowing season lasts during July and August. The method of cultivation is simple and resembles that of millets; the land is irrigated, and when the moisture is sufficiently absorbed, the seed is sown broadcast and the land ploughed but not harrowed. In irrigated land the fields are divided into plots for purposes of irrigation. The crop is sometimes sown mixed with *juári* or *bájri*. In irrigated lands, when it is mixed with maize, the *mung* seed is sprinkled in the maize field two or three days before the first watering of the latter. The crop ripens in September and October, when it is harvested. In Bárkhán in irrigated lands, a grasshopper (*tattu*) sometimes attacks the crop. *Mung* is used as a pulse, but the Afgháns generally make porridge (*ogra*) of it.

Moth.

Moth is grown only in the Bárkhán tahsíl in unirrigated land. It is sown between the end of June and the end of July and harvested during the first 20 days of October. When the pods have formed the crop makes an excellent fodder for horses.

Tobacco.

Tobacco is grown in Sanjáwi, Bori and Bárkhán, that produced in Bagháo in the Sanjáwi tahsíl takes the first place both in quantity and quality. It is exported by the Hindu traders to different parts of the District, also to Zhob and Harnai. The method of cultivation followed in Bagháo was recorded by Rai Sáhib Diwán Jamiat Rai in October 1902 and is briefly as follows:—The soil is first cleared of all

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stones. It is then watered, ploughed and levelled. This process is repeated four times. The land is then divided into small beds which are filled with water. A small bed is separately prepared and filled with water. The seed is sprinkled on the surface of the water and ashes are then sprinkled. The water dries and the seed and ashes commingle and setttle on the ground. This bed is watered for three days continuously and thereafter every fourth day. The seed sprouts in about eight days, and the seedlings (*paníri*) are ready for transplantation in thirty to forty days. The seed is sown in April. The *paníri* (seedlings) are transplanted in June into the beds previously prepared, the plants being about 9 inches apart. The work is done by men, women and children. After the transplantation, the beds are watered for two days, then every second day and after a fortnight every sixth day. Every week the tobacco field requires weeding, and the process being a tedious one, the work is generally done by women and children. The crop is ready in about three and a half months, and is cut between the 15th of September and 15th of October; in Bárkhán cutting begins early in September. When the plant is cut, it is thrown by the side of the bed where it is allowed to remain six days to dry. It is turned over after three days and the colour becomes reddish. After six days, the leaves are separated from the stalks and are collected.

Tobacco requires a good deal of manure, about 100 *kotals* (bullock loads) per acre, each *kotal* being about one maund. If cow dung is used as manure, it is first burnt to ashes but sheep and goat dung when used for this purpose need not be burnt. One and a quarter seer of seed is said to be sufficient for an acre of land. The produce is about 30 maunds per acre. The seed is sold at about Rs. 2 per seer in October and November, but at the time of sowing its price rises from 3 to 4 rupees. It is generally sold by *laps* (handfuls) at 4 annas a *lap*. The price of tobacco varies from Rs. 6 to Rs. 10 per maund.

Tobacco is used for smoking, largely for chewing and occasionally in the form of snuff by the indigenous population. For chewing the leaves are pounded, and mixed with the ashes of the plant called *umán* (*Ephedra pachyclada*) in the proportion of 2 and 1, respectively, and sometimes with lime. AGRICULTURE.

Lucerne.

Lastly may be mentioned the fodder crop of lucerne* which is cultivated in irrigated land and is classed as a *kharíf* crop. The cultivation except in the Bori tahsíl is small. The crop is sown near the headquarter stations of tahsíls. Sowing takes place in April and May. In the first year, it gives only one crop in August and in the following year it is cut once a month between May and September. The crop once sown lasts up to seven years with sufficient irrigation and manure. It is used mostly as green fodder, but wisps (*mora*) are also made and dried for use in the winter.

Manure, fallows an rotation.

The use of manure—*sarah* or *ambár*—is more popular in Bori than in other parts of the District, and is mostly confined to such irrigated lands as are cropped twice during the year, or to those situated close to the villages, and known as *gahwárae* or *jár*. Lands are generally fertile and owing to the system of fallows, which will be referred to presently, the necessity of manuring does not ordinarily arise. In a few cases the unirrigated lands in the neighbourhood of villages are sometimes manured. Manure consists of the dung of sheep, goats, cattle and horses ; and in the case of rice fields of *spánda* and *khamazúrai*. Sweepings and the refuse of houses are also used for the purpose. The land is usually manured for wheat and barley and after these crops have been cut is used again for maize.

Dry crop lands are, as a rule, fertile and require no manure. They are cultivated every year provided there has been a rainfall.

The system of fallows in irrigated lands is simple. Lands in each village are divided into a number of plots

* *Note.*—A somewhat detailed account of cultivation of lucerne is given at pages 106-7 of the Quetta-Pishin District Gazetteer.

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(*awáras*) which are cultivated in turn. The number of these *awáras* varies from one to seven in different parts, but the usual number is two to four.

Reference has been made under the section on "Soils" to the capacity of lands in Sanjáwi for bearing crops in a number of years. The following extract is taken from the report of Captain Forbes, then Assistant Political Agent, Thal Chotiáli:— "The method of cultivation as regards rotation of crops which prevails throughout the temporarily-settled villages is practically uniform. In the one *mauza* of Sanjáwi a distinct mode of cultivation is adopted. The common or general method seems to be to divide the holding into two parts. Suppose that both parts have been sown with a *kharíf* crop of Indian corn, then one part will be allowed to lie fallow and rest during the next *rabi* season, and in the other part wheat will be sown. At the succeeding *kharíf* season both parts will again contain Indian corn, but at the *rabi* season after that, the part which was allowed to lie fallow at the previous *rabi* season will be put into wheat, and the other part given a rest. In short, every alternate *rabi* season one half of the holding is not cultivated, but a *kharíf* crop is raised in both parts without intermission. In Sanjáwi the village lands consist of the outlying and the homestead lands. The homestead lands are cultivated for four years in succession with Indian corn and in the fifth year with wheat and *juári*. The outlying lands have wheat raised in them for four years and the fifth year are given a complete rest."

In the Bori tahsíl, the capacity of the irrigated land for yielding crops varies from two crops in a year to one crop in 24 years.

Manured land, as already stated, is cropped twice during the year, but without manure only one crop, viz., the *rabi* is raised, after which the land is left fallow for from one to three years. *Khushkába* lands too, if cropped twice during the year, are sometimes left fallow for a year.

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There is no fixed system of rotation of crops. Ordinarily after wheat or barley, if the land was manured, maize is sown, otherwise *juári*, *bájri*, or *azhdan* may be cultivated. This practice is almost uniform everywhere. In Duki in places where *awáras* do not exist, such as Viála Thal, the same land remains under the *rabi* crop for one or two years after which *kharíf* crops are sown in it for a similar period and the order is again reversed. For the cultivation of rice in the Toisar circle of Músa Khél, wheat is followed in the fourth year by maize, and maize in its turn by wheat; after this maize is again sown and is followed by barley and the latter is succeeded by rice. After rice the land is left fallow for a year and then the usual order as described above is resumed commencing with wheat.

The following statement shows the results of crop experiments giving the outturn per acre of the principal crops in different classes of land in each tahsíl :—

Particulars.	Sanjáwi.	Bori.	Duki.	Músa Khél.	Bár-khán.
	Maunds.	Maunds.	Maunds.	Maunds.	Maunds.
Wheat.					
Irrigated and manured land.	23	15 to 18	23	12	25
Land irrigated but unmanured.	20	10 to 12	20	8	20
Sailába	15	...	18	...	25
Khushkába ...	14	3 to 9	15	6	15
Juári.					
Irrigated and manured land.	...	...	23	12	...
Land irrigated but unmanured.	...		20	8	10
Sailába	...	...	18	...	25
Khushkába	...	..	15	6	15

The out-turn of barley per acre in Sanjáwi varies from 12 maunds in *sailába* land to 23 maunds in irrigated and

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manured land. That of maize is 17 to 30 maunds in Sanjáwi and 3 to 18 maunds in Bori.

Fruit and vegetable production.

Writing in 1882 in connection with Thal Chotiáli Dr. Duke said: "Trees would grow very well, indeed, with care and cultivation, and very beneficial results might be hoped for from arboriculture; vineyards formerly existed but the people destroyed them in their inter-village quarrels. A few mulberry, pomegranate, and vine trees are still found in some walled enclosures in the Thal plain, and a number of vines have been planted this year." The lower portion of the Bori valley was also described at the time of its occupation in 1886 as "well cultivated, with orchards peeping above enclosures and fields extending from village to village."

With the advent of peace consequent on the British occupation considerable extension in gardens has taken place in several parts of the District. Orchards are numerous in Sanjáwi, Duki and Bori. Small gardens are also attached to tahsíl headquarter stations. The Superintendent of Arboriculture in Baluchistán, Quetta, occasionally supplies plants to District and other officers in Baluchistán. In 1902-3 the Loralai Cantonment was supplied by him with a number of ash and other seeds for the raising of young trees.

The principal fruit trees in the District are pomegranate (*anár*), apricot (*zardálu*), vines (*angúr*), almond (*bádám*) and peach (*shaftálu*). Vineyards* are common in Sanjáwi, Duki, Thal and Bori. The grapes are of fine quality and represent the following varieties:—*haita*, *sáhibi*, *kishmishi*, *kalamak*, *tandán*, *tor*, *husaini*, *askari*. The pomegranates are of three descriptions, viz., *khozha*, *markhush* and *turwa* or *babrai*. The extension in gardens is due to the price which fruit now fetches in the market. Pomegranates are exported to Sind and to Déra Gházi Khán. The seedless sweet pomegranates produced in Bagháo, in Sanjáwi, are much prized. Grapes are sold locally, the

* A detailed account of viticulture is given in the *Quetta-Pishín District Gazetteer*, pp. 109-114.

produce of Duki, Thal, and Sanjáwi is also carried to Loralai Cantonment for sale. Other fruit trees, grown in the District in small quantities, include damson (*álúbukhára*), pear, quince (*bihi*), apple (*séb*), plum (*alucha*), and fig (*anjir*). Walnuts (*jauz*) are also found in Bori. Besides those at the tahsíl headquarters, a few orchards exist at Nazar Rotar, Tamni, Háji Kot, Chúhar Kot, and Chacha in Bárkhán. These contain lemons of various kinds, in addition to the fruits common to other parts of the District. The orchard at headquarters has also a few plantains. AGRICULTURE.

In recent years there has been considerable extension of melon cultivation and melons (*páléz*) are now grown for local consumption in all parts of the District. In Bori, Duki and Sanjáwi and also in Bárkhán, Kandahári *pálézwáns* who are experts in melon cultivation have been employed. The indigenous method is to sow the seed broadcast, to plough and harrow the land and then to divide it into beds. The system which has been introduced by the Kandaháris is called *chari** or *jowaki*. The land is ploughed three or four times and trenches (*jo* or *chari*) made some 4 to 6 feet apart, the seed being sown on both sides of the trench. Melons are sown from March to May and begin to ripen in June, and the crop is over by the end of September. In dry crop cultivation the seed is sown broadcast, or by drill, and is occasionally mixed with *juári*. Melons.

The use of kitchen vegetables is still almost unknown to the indigenous Muhammadan population. The following wild plants, and the fruit of some of them, are used as vegetables:—*bushka* (*Lepidium draba*), *shéza*, *pamangi* and in Bárkhán *chibar* (*cucumis*), *mehal* (*Citrullus vulgaris fistulosus*), wild bitter gourd (*Jangli karéla*), *ghandol*, *khattan* or *lúnak* (*Portulaca oleracea*) and *maréri* (*Amarantus blitum*). At the headquarter stations of all tahsíls, vegetables of various kinds are now grown, while at Loralai, where there is a Kitchen vegetables.

* For further details, see pp. 118-119 of the *Quetta-Pishin District Gazetteer*.

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considerable number of alien inhabitants, and the produce commands a ready sale, the cultivation of vegetables is on the increase, especially in the villages of Zagharlúna Zangiwal and Oryági. In Bárkhán, vegetables were formerly grown only in Mír Háji Kot, but they have now been introduced in Chúbar Kot, and parts of the Leghári Bárkhán, and Rakhni circles. The vegetables produced include—carrots, onions, *pálak* (spinach), *bánjan* (egg plant), *kadu* (pumpkin), *méthi* (*Trigonella foenumgraecum*), cucumbers, gourds, *karéla* (bitter gourd); *múli* (radish), *shalgham* (turnips); cabbage (*gobi*), *bhindi* (ladies' fingers); coriander, *thúm* (garlic) and red chillies (*mirch*). *Sarson* (*Brassica campestris* var. *Sinapis dichotoma*) is cultivated as a vegetable in Bárkhán.

Carrots.

Carrots (*zhardak*) and onions (*piáz*) are grown by cultivators. The carrots are of three varieties known by their colour as red (*sra*), yellow (*zhara*) and white (*spína*). The seed is imported from Quetta, and is sown in July. Previous to sowing, the land is ploughed twice and harrowed, all clods being well broken. It is then divided into small plots which are filled with water and the seed, which is mixed with earth, is sprinkled over it. On the third day the plots are again flooded and irrigation continues at intervals of three or four days until the plants appear, after which the ground is watered every eight or ten days. The roots mature in October and November.

Onions.

Onions are represented by two varieties called *kandahári* and *kákari*. The latter is the indigenous variety and is sown by transplantation (*paníri*), unlike the *kandahári* variety, the seed of which is sown broadcast. The method of cultivation in Bori is as follows:—In October a plot of land is well prepared and manured with earth brought from old mounds. The seed is sprinkled, and mixed in the soil with a branch of a tree. It is then watered, the subsequent four waterings being done at intervals of three or four days. The seed germinates

in ten or twelve days when it is watered and ashes are scattered over the field. Henceforward irrigation takes place after every ten or twelve days throughout the winter. About the end of February or early in March the land into which it is proposed to transplant the seedlings is prepared and divided into small plots (*kalai*). The seedlings are now transplanted and the plots are watered the same day. A second watering is given four days later and two subsequent ones at intervals of twelve days; thereafter the crop is irrigated every week. If insufficiently watered, the crop is liable to be damaged by a worm (*larama*). It ripens in June and is dug up by the end of August. The *kandahári* variety is sown about the end of March and harvested in October. The Násars export onions to other parts of the District and also to Fort Sandeman.

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Extension of cultivation.

In the Material Progress Report for 1891—1901 of the Zhob District, which then included the Bori and Músa Khél tahsíls of the present Loralai District, Major Stuart H. Godfrey, Political Agent, remarked (1902) that it was difficult to form an accurate estimate, as no records were available, but that owing to peace and settled administration, and by the aid of *takávi* advances the area under cultivation must have increased, such being the very distinct impression of officers like himself, who knew Zhob in the first days of the Agency.

Dr. Duke writing in 1882 about Thal-Chotiáli which is now included in the Duki tahsíl said :—

"The perennial stream at Duki is abundant and irrigates 379 acres; there are six *kárézes* at Thal irrigating 182 acres; two at Jalár (Jhalár) irrigating 391 acres; the Duki *kárézes* give a considerable water-supply and irrigate 956 acres, thus then the total area in Thal Chotiáli irrigated by perennial water amounts only to 3,035 acres."

The acreage figures of later periods are not available for purposes of comparison, but the increase in cultivation would appear from the fact that there were thirteen *kárézes*,

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in Duki and sixteen in Thal in 1905. In pre-British days the Khétráns were always in terror of their neighbours more especially the Marris, and consequently any cultivation that existed was limited to fields close to the villages and hamlets. At the time of the occupation of the country in 1887, it was found that, although the main valley and a multitude of minor valleys were more or less capable of cultivation, many were desolate owing to inter-tribal feuds.

Exact figures are not available for the District as a whole, but it is admitted on all sides that since the British advent considerable extension in cultivation has taken place in all parts of the District.

The local reports show that increased cultivation of *khushkába* tracts is more noticeable, and this accounts for the rise in the value of land. In Sanjáwi the *khushkába* cultivation has increased especially in the Bagháo and Púi circles. In Músa Khél, the total area under cultivation in the Kingri circle, both irrigated and unirrigated, has been brought under the plough since the British advent, and the same remark applies to about half the area in the Sadar and Toisar circles. In 1896 the late Lieutenant-Colonel Gaisford, then Political Agent, Thal Chotiáli, initiated the experiment of bringing under cultivation certain waste tracts of land, in the different tahsíls now comprised in the Sibi and Loralai Districts. He was of the opinion that much might be done to stimulate agriculture, by taking agreements from the people, and that it would strengthen the hands of the *maliks*, who really wished to extend cultivation but could not get their people to move. The areas which fell within the scope of this scheme included Duki, Sanjáwi and Bárkhán. A number of agreements were taken, whereby the owners bound themselves to reclaim the land without abandoning any of their former cultivation, within a term of years, after which all waste lands would be at the disposal of Government. The principal tracts selected for these operations were the following in Duki :—Sagar, Palos, Landi, Palíáni, Ambohi,

Gwál, Sháh Tumni, Kirdi Kach, Kuchi, Naréchi Katchis, Dagar, Sha, Sanáo, Wal, Sakharzai, Sangori, Bargar, Taláo, Derhmunh, Réz, Dámán, Karáhi, Khandi, Rakhad, Láh, Dháki, Faizullah Káréz, Zaki, Gandhéri, Wangan, Réti, Jhali, Mánki, Jangal and Rabát. In Sanjáwi several small places were selected including Uchwain, Adol, Sarakhezi, Post Kuch, Marthi, Khushkába Kharáshang, Gul Khoza and Takri. In Bárkhán the principal tracts were a piece of land in Háji Kot village between Bárkhán and Náharkot, Kachaz, Rahi, Dilla, Daba, Gandi Bani Deh, and Karor. Some of the foregoing tracts have since been brought under cultivation and in a few cases *takávi* advances have also been granted for their improvement.

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Under an arrangement made in 1897, the Leghári chief was permitted to cultivate tracts outside the limits of the Náhar villages and settlements for a period of ten years, free of revenue, and it has been reported that about 7,600 acres of land have been brought under the plough up to March 1906. Almost all of this land depends on rain.

Among the different crops, the largest increase has taken place in the cultivation of wheat. As already mentioned, more interest is now taken in growing vegetables; gardens are springing up apace, and melon and lucerne beds are seen more often than before. In Bárkhán the cultivation of *juári* has extended by about one-third, while tobacco has become more popular in Sanjáwi, especially in the Bagháo circle. Potatoes have been introduced in Bori and Sanjáwi and also some new varieties of melons such as the *kandahári kharbúza*, *sardas* and the *malangi* variety of water melons. In Duki the experimental cultivation of sugarcane, imported from Khost in the Sibi District, and of cotton imported from the Punjab, has met with some success; the former being tried in the garden at the tahsíl headquarters, and the latter at Thal. An experiment has been made in the Government garden, in the cultivation of *pista (Pistacia*

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vera), with seed imported from Persia, and the experiment has so far (1906) proved successful.

Agricultural implements.

Appendix III contains a list of the implements of husbandry.

The principal implements include the plough, which is known as *yivgi*, *yivi* or *hal*, the plank harrow or scraper (*ghoidal*, *khál*, *karah* or *kén*) with which embankments are made, and the clod crusher or log (*mála*) used in place of a roller for breaking clods and smoothing the ground. Among minor implements may be mentioned (*rambae* or *ramba*) a weeding spud, (*lutmár*) a wooden mallet for crushing clods, (*dal* or *dhal*) a wooden spade worked by two men with a rope and used for making small embankments, the sickle (*lor* or *dátri*) for reaping, the four or two pronged fork (*chár shákha* also called *chárgháshki* or *trangal* and *dosh ákha* or *dowagháshki*, *dowakhulgi*, *tranguli* or *bihángi*) and the *drapae* or *karráhi* or wooden winnowing spade. There has been no appreciable improvement in agricultural implements during recent times.

Appendix IV contains a list of the principal agricultural and flock-owner's terms used in the District.

Agricultural advances.

The Land Improvement Loans Act XIX of 1883, and the Agriculturists' Loans Act XII of 1884 have not been applied to the Agency, but rules to regulate such advances have been promulgated under the executive orders of the Government of India, and are embodied in the *Baluchistán Takávi Advance Manual*, 1902. The question of the extension of these Acts to Baluchistán, and the revision of existing rules, is under consideration (1905). The annual grant for the whole Agency is Rs. 60,000 of which Rs. 9,000 are allotted to the Loralai District. Under the existing rules (1905) the Political Agent is authorised, within the limit of his grant, to sanction advances not exceeding Rs. 1,000 in each case, and the Revenue Commissioner up to Rs. 3,000; the sanction of the Local Government is necessary for advances in excess of this amount. The ordinary rate of interest is one anna in the rupee or $6\frac{1}{4}$ per

cent per annum, but in a case in which the Political Agent is absolutely satisfied that the project is a sound one financially and is likely to lead to an increase of revenue, which within the term fixed for the complete repayment of the advance, will amount to not less than the whole interest ordinarily chargeable under the rules, he is at liberty to grant the advance free of interest. The advances can be granted either for works carried out by the Political Agent himself or by the agricultural population. During the years 1897-8 to 1904-5 advances amounting to Rs. 49,430 have been granted under the Land Improvement Loans Act, and Rs. 58,328 under the Agriculturists' Loans Act, the recoveries during the same period being Rs. 60,731 and Rs. 55,504 respectively. The balance outstanding at the close of the year 1904-5 amounted to Rs. 19,544 which included Rs. 16,564 under the Land Improvement Loans Act and Rs. 2,980 under the Agriculturists' Loans Act. Details by tahsíls for each year are given in table VIII, Vol. B. The foregoing advances include loans amounting to Rs. 37,280 made in Bárkhán, Rs. 30,110 in Duki, Rs. 23,352 in Bori, Rs. 10,760 in Músa Khél and Rs. 6,256 in Sanjáwi. The advances are ordinarily given for sinking new *kárézes*, repairing and improving old ones, digging water channels, making embankments and in times of drought and scarcity for the relief of distress and the purchase of seed and cattle. Advances are generally recovered by half-yearly instalments. Recoveries are usually made on due date, and it is very rare that the suspension of an instalment is applied for. Suspensions are, however, granted if the borrower can show good reason for the same. There have been no cases during the ten years ending 1903 in which advances have had to be written off as unrecoverable. The people avail themselves readily of the advances, with the exception of the inhabitants of the Músa Khél and Bárkhán tahsíls and *mullás* in the Bori and Sanjáwi tahsíls who generally offer objections to the payment of direct interest.

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During the twelve years ending with the 31st of March 1905 the important measures for which *takávi* advances were granted (all free of interest) were the following:—In the Bori tahsíl, the construction of a *káréz* in Shabozai (Rs. 4,700), another in Zhar Káréz (Rs. 2,000) and the excavation of the Bori *viála* (Rs. 1,500); in Duki the construction of Kamál Káréz and Alam Káréz in Thal (each Rs. 3,000), the construction of an embankment and the excavation of channels for the irrigation of the Paliáni lands (Rs. 2,000), Motea Káréz in Thal (Rs. 4,000), and the construction of embankments to cultivate waste lands under the Anambár flood canal (Rs. 3,000); in Bárkhán for embanking lands in Rarkan (Rs. 3,000), for improvement of and digging irrigation channels for lands in Legbári Bárkhán (Rs. 10,000); and lastly in Músa Khél for embanking and improving lands in Rára Sham (Rs. 2,000).

Special loans.

For political reasons special loans have been occasionally granted to some of the leading men in the District, to help them in financial difficulties and to enable them to purchase land. Such loans were granted in 1899 and 1901 in the Bori tahsíl to Nádar, Hamzazai of Wahár (Rs. 2,000) and to Fakhr-ud-dín, Ghilzai, of Loralai (Rs. 1,500), and in the Duki tahsíl to Amír Muhammad Shádozai of Jhalár Khurd in 1900 (Rs. 3,000), the rate of interest charged being 5 per cent per annum. The balance of these loans outstanding on the 31st of March 1905 was Rs. 2,647-12-9.

Agricultural indebtedness.

In the Material Progress Report of the Zhob District for 1891—1901, Major Stuart H. Godfrey, Political Agent, remarked as follows:—

"There is practically no agricultural indebtedness in the Lower* Zhob Sub-division, but in the Upper* Zhob Subdivision it might be estimated that about 60 per cent of the people are in debt at an average indebtedness of Rs. 200. The causes are chiefly—(a) Debts to Hindu shopkeepers,

* Lower Zhob and Upper Zhob included then also the Músa Khél and Bori tahsíls respectively both of which are now parts of the Loralai District.

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more especially among the higher classes and those in Government service. (*b*) From excessive mortality during epidemic disease and from debts incurred during bad harvests and seasons of severe drought. (*c*) Payment of sale prices of girls (locally called *walwar*) in marriage is probably the principal cause of indebtedness in the District. A man having only sons and no daughters will be fairly on the verge of ruin. (*d*) Adultery, a common crime and which usually ends in payment of a heavy fine to injured parties, and (*e*) hospitality carried to extreme and absurd lengths especially among the poorer members of the *sardárs* and more important clans."

In the course of the settlement of the Sanjáwi tahsíl K. B. Mír Shams Sháh, Settlement Extra Assistant Commissioner, ascertained (1901) that the "cultivators are generally in straitened circumstances as is evident by the fact that their mortgage liabilities are nearly equal to the yearly revenue demand of the whole tahsíl, while the area under mortgage is about one-fourth of its total irrigable area."*

Perhaps the most indebted classes are those living in the neighbourhood of Loralai and the Jáfars of Músa Khél. This indebtedness is due in the case of the former to a higher standard of living and, in the case of the latter, to the heavy demands made upon their hospitality.

As a rule the cultivators do not borrow from the Hindu *bania*, but finance each other, the interest being charged indirectly. On religious grounds the orthodox object to paying interest in cash, but have no scruple about paying its equivalent in an indirect form. Among the Afgháns loans are commonly arranged between the cultivators on the system known as *salam* which takes different forms. When a cultivator obtains a loan, he agrees at the time to repay it at a fixed rate at the next harvest, this rate being generally much higher than that current at the time of the loan.

* Total area surveyed was 24,352 acres of which 1,808 acres were mortgaged for Rs. 13,281.

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Thus if a man takes a loan of Rs. 50 at a time when wheat is selling at the rate of 10 seers to a rupee, he will agree to repay the loan in wheat at the rate of 15 or 20 seers to the rupee. This system is also applied to advances of grain. If a man obtains 10 maunds of wheat when the sale price is 16 seers, he will either take the grain at a lower valuation, say, 12 seers for the rupee, and agree to repay the amount in cash at the next harvest, or he will agree to repay the loan in grain at a higher rate, say, 20 seers to the rupee.

The *salam* system is also followed by Hindus, but they sometimes charge interest on cash loans at the rate of 1 to 4 annas per rupee per month. In Bárkhán the rate is from Rs. 2 to Rs. 5 per cent per month. In Duki when ornaments are pawned and the loan is advanced on their security, the rate of interest charged is from 3 pies to 1 anna per rupee per month; and for cloth sold on loan, the interest is 4 annas per rupee till harvest time when the loan is usually repaid. Among the Isots of Drug it is customary to draw upon the Hindu shopkeepers of Vihowa in the Déra Ismáíl Khán District for advances of *juári* and *bájri* grain, and to repay the loan in wheat at the next harvest, when they visit Déraját for the carrying trade. In the *khushkábas* and sometimes also in irrigated lands there is a custom in Bárkhán under which a landlord gives his tenant a small piece of land measuring from one rood to an acre (*wasi*), free of rent. The tenant also sometimes receives a cash loan, and in return for this he cultivates other lands for his creditor. No interest is charged in such cases and the tenant can abandon his tenancy only on repayment of the debt.

Mortgages and sales.

Reliable statistics of sales and mortgages are not available as in most cases the transactions are negotiated among the people themselves without drawing up or registering the deeds. The number of aliens into whose hands lands have passed, is inconsiderable. In the Duki and Sanjáwi tahsíls a few trans-border Patháns have purchased land and permanently settled in the District. In Bori, refugees from

Afghánistán, a few Afgháns from Pishín and Punjábi Muhammadans and Hindus, have also purchased land and water near the Loralai Cantonment. AGRICULTURE.

Information supplied by the tahsíldárs indicates that in 1904-5 the mortgages by cultivators to Hindus amounted to Rs. 150 in Sanjáwi and sales to Rs. 4,000 in Duki; the mortgages and sales among cultivators themselves in Bori aggregated Rs. 2,875; the Hindus mortgaged or sold landed property of the value of Rs. 1,160 to cultivators in Bori, while in the same tahsíl the sales of land to Government by Hindus and cultivators amounted to Rs. 2,200.

Mortgages (*adáb*) are of a simple character. They are usually without possession. The mortgage money is ordinarily about one-half or two-thirds of the value of the land. The usual conditions are that the mortgagor shall remain in possession of, and cultivate the land, and shall pay a fixed share varying from one-fourth to one-half of the produce to the mortgagee on account of interest, till redemption, which can be claimed after raising the crop which has been sown. The mortgagor in such cases is responsible for the revenue. In Duki the mortgagee is sometimes paid as interest a fixed quantity of grain about 5 maunds for every hundred rupees of the loan; in rare cases it is paid in cash. In cases of default of the requisite payment, or if the land be purposely left uncultivated, the possession is transferred to the mortgagee. *Bai-bilwafa* or conditional sale is a transaction under which the mortgagee enters into possession of the land for a term of years, and if the loan is not repaid within that time the land lapses to him, unless the contract is renewed. A peculiar form of mortgage without possession and known as *doméri* is in vogue among the Jáfars of Músa Khél. On raising a small cash loan the debtor agrees to pay for a term of years one-twentieth of the total produce of a certain plot of land, a bundle of ears of wheat and one *topa* of every kind of grain produced in the said plot, the latter payment being known as *chungí*. A second form of *doméri* is that under

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which a cultivator agrees to make the above payments to a Hindu *bania* and in return the latter provides him and his family with all *bonâ fide* sundries such as hair oil, tobacco for smoking and for snuff, needles and thread for sewing clothes and such medicinal drugs as *saunf, harér*, etc., etc. This latter contract is generally made for the term of a harvest and may be renewed when necessary.

Domestic animals.

Horses, camels, bullocks, donkeys, sheep and goats are the principal domestic animals. Buffaloes are found in Bárkhán and Duki and are also possessed by the Hindustáni *gowálas* at Loralai. Fowls are kept in most villages, and fetch from 2 to 6 annas apiece. Eggs cost from 2 to 3 annas a dozen. Nearly every household possesses a shaggy sheep dog for purposes of protection.

The following table shows the estimated number of domestic animals in each tahsíl in 1904 :—

Tahsíl.	Camels.	Donkeys.	Cows and bullocks.	Sheep and goats.	Buffaloes.
Bori ...	...	200	4,000	35,000	...
Sanjáwi ...	4	116	1,060	39,562	...
Duki ...	30	334	5,995	5,223	7
Bárkhán ...	200	485	9,853	55,213	121
Músa Khél ...	800	800	4,700	121,000	...
District Total ...	1,034	1,935	25,608	255,998	128

The numbers in possession of the nomads are roughly estimated to be as under :—

Tahsíl.	Camels.	Donkeys.	Cows and bullocks.	Sheep and goats.
Bori ...	1,396	616	79	12,342
Sanjáwi ...	107	54	...	587
Duki ...	5,072	400	...	62,000
Bárkhán ...	51	56	69	2,196
Músa Khél ...	647	285	335	6,482
District Total ...	7,273	1,411	483	83,607

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Horses.

Information about the different breeds of horses in Baluchistán, their rearing and training and the system of breeding adopted by the Army Remount Department, will be found in a Monograph published in 1905 under the authority of the Revenue Commissioner in Baluchistán.*

"The most distinctive and best breeds of horses in Baluchistán, when the British first came to the country, were the Duki and Bárkhán breeds. They were mostly bays and browns with some roans, about 14-3 to 15-1 hands in height, with short backs, small well-bred heads and long slender well-arched necks. Their shoulders also were very good, but the most distinctive point about them was the want of bone below the knee. Their legs, however, were perfectly shaped and very clean. They were very hardy and always in work. Unfortunately very few, if any, of this breed still remain as the Lúnis and Khétráns, to whom they belonged, sold the best mares when the British occupied the country and raids and forays were stopped.

"In Bárkhán the indigenous breeds called *baggi* (chestnut), *séli* (dark brown), *bibiánki* (bay), *chachcha kashnián*, *juláb* (dun) and *lohar* were formerly best known. Of these the *séli*, *baggi*, *kashnián* and *bibiánki* are still to be found in small numbers, the first in Déha and Ahmad Khán Mahma, the second with the Mazaráni family of the Khétráns, the third at Chúharkot, and the fourth round Chúharkot, in Shádo Isiáni's village and Takra Nasír. Many of these mares are descended from a famous stallion which was of the Gorcháni *gadh* breed and in the possession of a Sikh officer of cavalry stationed in the time of the Sikh rule at Harand in the Déra Gházi Khán District. A *domb* (minstrel) from the the Khétrán country stole it and it was long used for breeding by the Khétrán people." In Duki the only well known breed is that called *bewáni*, with the Lúni *tumandár*. They

* *Horses, Horse Breeding and Horse Management in Baluchistán*, by R. Hughes-Buller, I.C.S., with an appendix by Major H. M. Patterson, Army Remount Department.

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are bay (*komait*) in colour and are known to the people as *súr skán*. They are of good size, have black hoofs and are not easy to manage. In the remaining tahsíls no special breed of horses is found and the animals are ordinary ponies. Government stallions are stationed at Duki, Bárkhán and Loralai. The following statement gives statistics of branded mares, etc., in the Loralai District on March 31st, 1905:-

Number.	Name of tahsíl.	Name of stand.	Number of stallions at each stand.	Number of branded mares in each tahsíl.	Number in each tahsíl.		
					Colts by Government stallions.	Fillies by Government stallions.	Geldings.
1	Duki...	Duki...	1	55	...	...	...
2	Bár-khán.	Bár-khán.	1	74	7	4	8
3	Loralai	Loralai	1	42	...	...	...
4	Sanjáwi	...	...	6	...	...	...
		Total ...	3	177	7	4	8

Camels.

The camel is the common transport animal of the District, and as there is no railway is largely used for all transport purposes. The number of indigenous camels is, however, small, there being practically none in Sanjáwi and Bori. The principal indigenous breeders in Músa Khél are the Isots of Drug, and the Lahrzais; the former engage in transport and the latter keep their animals for sale to the Shinwárs and Násars. In Duki the Waliáni Lúnis are the principal local camel breeders.

A large number of Kharot and a few Sulaimán Khél, Taraki and Shinwár camelmen encamp in the Duki tahsíl from November to March, bringing with them herds of camels. Most of the nomad camps are pitched along the Anambár stream and in the neighbourhood of Gumbaz. In summer they migrate to Kákar Khurásán and Afghánistán. Besides the Ghilzai camels that are actually to be found in and round Duki during the winter, about two thousand more are said to find their way through the District to Déra Gházi Khán. The transport work on the Harnai-Fort Sandeman road,

which traverses the District, is in the hands of the aliens, chiefly Ghilzai Powindahs and Lángavs of Kalát. AGRICULTURE.

Cattle are represented by a small breed of different colours generally black, white and red and occasionally also yellow (*zhar*) and spottted (*dab*). The breed found in Músa Khél is larger in size and is greatly prized. It is generally black or yellow in colour. From Músa Khél bullocks are exported to Fort Sandeman, to Dámán in the Déra Ismáíl Khán District and sometimes to Bannu and Kohát in the North-West Frontier Province. In Duki cattle are sometimes imported from Lahri in Kachhi and from Larkána in Sind. Herds of cattle are kept in Thal, the bullocks being remarkably strong and hardy ; a Thal bullock properly laden walks its 14 miles a day, carrying 4 maunds of grain on its back with the greatest possible ease, in fact, horned cattle flourish at Thal even better than horses, with whom the somewhat salt character of the plain forage does not always agree. Cattle.

The donkey is chiefly used for transport. The indigenous breed is of medium size and generally black in colour. The Buzdár breed of donkeys is excellent. The principal breeders in the District are the Lahrzais, Isots and Sínzai Bél Khéls of Músa Khél. Músa Khél donkeys are exported for sale to Dámán in the Déraját. Donkeys.

The indigenous breed of sheep are of the thick-tailed, hornless variety, generally white in colour and of low build. The principal breed is known as *kákari*. The sub-varieties are distinguished by the colour of the muzzle, feet, or ears, the body being generally white. They include *torghwazhi* (black ears), *torkhutli* (black muzzle), *skhara* (black head with white forehead) and *tor-dab* (spotted black and white). The Mizris of Músa Khél possess a breed known as *surboli* which are white in colour with small ears and long thin tails. The variety found with the Lahrzais and Bél Khéls in Músa Khél is larger in size than the *kákari* breed. The goats are generally black, with largish horns. There are no special varieties except that they are known as *kákari* and like sheep, the different Sheep and goats.

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kinds are distinguished by their colour, *tor* (black), *spín* (white), *sra* (red brown) and *tor dab* (spotted black and white). The Zmarais, Jáfars and Isots of Drug in Músa Khél possess a breed known as *balochi*. These are generally white in colour, have long teats and are good milkers. The principal flock-owners in Sanjáwi are the Shabozai and Kanozai Dumars, and Wanéchis; the Zakhpéls, Ahmakzais and Bádinzais in Bori; in Duki the Hasnis of Thal and the Lúnis especially the Waliánis of Lákhi; the Súnman, Lalah, Wagah, Sheikh and Hasni Khétráns, of Bárkhán; and the Lahrzais of Músa Khél.

Sheep are shorn twice during the year in the spring and autumn. Goats and camels are shorn only once during the year, in the spring. A goat produces from 6 to 12 ounces of wool each year, a sheep 2 to 3 pounds and a camel about 2 pounds. Goat hair (*wazghúni*) is used by the nomads for making ropes, sacks, and *kizhdi* flaps (*tágae*); camel hair is employed for making sacks, and sheep wool (*warai*) for making felts (*namda*), felt cloaks (*kosae*) and rugs (*kambala*). The selling price of goat hair is about Rs. 10 a maund, and that of camel's hair is about Rs. 8 to Rs. 10 per maund. The price of sheep's wool depends on the Karáchi market, to which it is exported, and varies from Rs. 8 to Rs. 22 per maund. Goat hair is exported from Bárkhán to Déra Gházi Khán, Sukkur and Karáchi. Owing to the demand for it, the rate at which it sells is higher, viz., from Rs. 16 to Rs. 20 per maund. On the other hand sheep's wool sells at Rs. 6 to Rs. 10 a maund. The wool exported is very dirty, the reason being that the sheep are not washed before being shorn. If, however, the wool is required for home use, the animals are washed before shearing. The exported wool is purchased through local middlemen.

Average value of each kind of animal.

Male camels vary in price from Rs. 50 to Rs. 80, female camels fetch from Rs. 50 to Rs. 60; ponies can be purchased at prices ranging from Rs. 50 to Rs. 100; the price of horses varies considerably, good ones fetching Rs. 300 or more. The price of a pair of bullocks varies from Rs. 50 to Rs. 100

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and a cow can be had at about Rs. 20 to Rs. 40. Sheep fetch from Rs. 4 to Rs. 10 each; lambs about Rs. 2 to Rs. 5; goats Rs. 3 to Rs. 5; kids about Rs. 2; donkeys from Rs. 15 to Rs. 50; and buffaloes about Rs. 70.

Pasture grounds and grazing.

The area of pasturage is practically unlimited, and in normal years the hillsides and valleys are covered with grass and numerous small cruciferous and leguminous plants which afford excellent grazing for sheep and goats. Good camel grazing is obtainable in most places. In the irrigated tracts *bhúsa*, straw of *mung*, lucerne, green wheat and barley (*khíd*, *khasíl* or *gandálai*) and stalks of maize and *juári* are used as fodder for horses and cattle. By far the most abundant pasture is available in the Duki and Músa Khél tahsíls, while near Loralai there is also a good supply of grass. Dr. Duke writing in 1882 said:—"In years during which the rainfall is great, Thal produces various sorts of grasses in considerable abundance; in other years, owing to the dryness of the air, forage is very scarce at Thal itself; grass can, however, be always obtained in the extensive waste lands and woods at the eastern end of the valleys.

"The Thal grasses are, as a rule, very suitable for cattle and good for horses; the mountain grass from the surrounding hills is highly valuable for horses, and they thrive on it capitally."

There are no regularly fixed pasture grounds in the District, but some of the best tracts, which are covered with grasses after the rains, are Sahara, Khajúri, Kakal Dámán, Tidar, Tsapar, Rod, Béhu and Súrghar in Músa Khél; Rod Naréchi including Gumbaz, Hosri, Warézai, Karáhi, Cham, Chamálang and Bargar in Duki; Karchi, Uhi with Koh Dhaola, Han and Koh Jandrán, Tang Kárér with Chákho, Pargára, Mar-riwah, Tah Jamál Khán, Chhodi, Wager Mahma, Riba Kéj, the Borián lands, and the skirts of the Pwáhd hills in Bárkhán; Torkhézi, Kohár, Uzhda, Khárjan, Súrghund and the Mékhtar valley in Bori; the Saláms, Shori, Laudi, Aghbarg, Ghozh Melaga, Ghair Khwáh, Biáni, Maréti,

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Wani, Urbusi, Kharáshang, Lwára, Chilra, Súrjangal, Zhae Ghozha, Súrpitao, Kándír, Landae Ghargae, Kharao, Aghbargián and Naridág in Sanjáwi. The principal grasses are the *sába*, *kumála*, *vashta*, *pá*, *barwazi*, *sargara*, *wízha*, *mashkan* or *mashkanri*, *khazal*, *barav*, *khuryásta*, *dob* and *sargásh* or *sargáshi*, and the bushes used as fodder are the *tirkha*, *zamai*, *khamazúrai*, *ghozéra* or *zaghéra*, *sissai*, *barar*, *parkai*, *ghalmai*, *gázara*, *záhrbútáae*, *mákhai*, *tamand* and *ghalmai*. In Bárkhán the best known grasses are the *wal*, *sumbak* or *sumakh*, *chhabal*, *téli*, *sanji*, *dráman*, *súra*, *sinak*, *san*, *phulni*, *gandhil*, *kunnal*, *sar*, *drab*, *kháni* or *kal*, *shorwála*, *makni*, *ratak*, *gam*, *rínak*, *harnighás*, *gádai*, *púi*, *pia* and *naktarop*. The *sába* is the best of all grasses and in Bárkhán the grasses favourite with all animals are those known as *súra*, *rínak*, *dráman*, *harnighás* and *san*. Tamarisk (*ghaz*), found in the Loralai and Anambár river beds, furnishes good fodder for camels. The grass reserves under Government management are described in the section on "Forests". These include the Nargasi, Domukhai and Súrghund in Bori; and the Gumbaz *rakh* in Duki, which last named is used by the cavalry detachment stationed there. In certain parts of the District, land is reserved for pasturage (*pargor*) in which rights of ownership are in some places recognised. The custom as to the manner of enforcing such right, naturally differs among the different tribes. In Duki the Marris, owing to their traditional enmity with the Lúnis, are prohibited from entering the latter's pasture grounds. In the Bori tahsíl, the system exists in a vague form. The inhabitants of any particular village may agree to reserve a tract near the village during the summer months when a large number are absent in the hills, but it does not appear to be customary to do so. In the Bárkhán Sub-division the practice of reserving *pargors* may be said to have become somewhat crystallised into custom. Thus, for instance, in the Músa Khél tahsíl, many tribes or sections of tribes reserve

large areas for grazing, and it does not appear that any class of grazing is particularly specified. These areas are reserved during the summer months from about the 15th of February to the 15th of November. The areas reserved are as effectually closed to the members of the tribe itself as to outsiders. According to local reports the custom is enforced by a system of fines; the penalty amounts to about Rs. 10 if the trespasser belongs to the tribe owning the *pargor* and to Rs. 20 in the case of an outsider. When the *pargors* are opened to grazing, outsiders and Powindahs are entitled to use them in certain defined localities with the consent of the leading man of the tribe. Cases of disputes are common and trespassers are not allowed to graze with impunity, a case being known in which the owner of the *pargor* took the law into his own hands and killed the trespasser.

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In the Bárkhan tahsíl it appears that the custom is somewhat different. The *pargors* are small in area and are the property of individual owners; they are reserved only for plough bullocks and milch cows; the close season lasts from August to December. All *zamíndárs* and tenants have a right to reserve small tracts, averaging ¼ to ½ mile, adjoining their own cultivated land. The *pargors* are liable to change periodically or from year to year. The lands are brought under cultivation by turns and tracts left out of cultivation are brought under *pargor*. No cases relating to the *pargor* custom have been decided by *jirgas* (1905).

In the Bárkhán tahsíl it is sometimes the practice with the cultivators to reserve the *juári* fields against outsiders after cutting the crop. The fields so reserved are known as *behatar* and are in times of scarcity sold to Powindah flock-owners.

Gumbaz Horse Fair.

During his tour in the District in 1904 Mr. W. S. Davis, Political Agent, noticed that there was still a large number of excellent mares and young stock in the Khétrán and Lúni country, and the people complained to him that the markets for the sale of their stock at Déra Ghází Khán,

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Sibi and Quetta were far from their homes. He recommended that an annual fair be held at Gumbaz and prizes awarded to encourage breeding. The first experimental fair was accordingly held at Gumbaz in March 1905, when 221 animals were exhibited and Rs. 323 awarded in prizes. The total expenditure amounted to Rs. 500 which was met from the Loralai Town Fund. Two colts were purchased by the 32nd Lancers for Rs. 370 and 27 ponies by the Zhob Levy Corps at an average price of Rs. 149.

The second fair was held in April 1906 when the total number of exhibits was 225, the expenditure amounted to Rs. 1,000, of which Rs. 610 were awarded in prizes. The Army Remount Department contributed Rs. 300* and the balance was paid from the Loralai Town Fund. In classes I and II "Brood mares branded" 40 mares were shown, and with regard to them, Major Patterson, Superintendent Army Remount Department, Baluchistán Circle, recorded the following opinion :—"The majority of these were very good; if owners would only breed from these mares, and look after and feed their stock there is no reason why this show should not, in time, rival the Jacobábád and Sibi shows where large numbers of young stock are sold yearly to Government, Native Cavalry, Levies, Police, dealers and private individuals."

Cattle diseases.

No scientific enquiries into the prevailing cattle diseases have ever been made. Mention may, however, be made of a few of the more common diseases known to the people, their characteristics and local remedies. In most cases the branding iron is resorted to, and the *mullá's* or Saiad's charm is regarded as the best specific ; in the case of infectious disease. however, the affected animals are segregated.

The most dangerous diseases are considered to be *warkhárae* and *dukh* in sheep; *wuzmár* and *pún* in goats; *kuráh* in cattle, and *khullok* or *khurkan* in camels. *War-*

*Note.—From 1907 onward the annual allotment for the fair is to be Rs. 1,000, of which Rs. 500 will be contributed by the Loralai Town Fund, Rs. 300 by the Baluchistán Provincial Revenues, and Rs. 200 by the Army Remount Department.

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khárae (dyspepsia) known in Bárkhán as *bargára* or *ríko* affects the flocks in the spring, when the pasture is new and the animals overfeed themselves. It is also common among goats and cattle. There is a free discharge from the bowels followed by constipation. The usual remedy is to starve the animal for 24 hours and then administer *gambéla* (*Mallotus philippinensis*) in the form of pills. In Músa Khél, on the outbreak of the disease, the owner of the flock kills a kid and distributes it as alms in the name of Adam Khán and Durkho, the two Afghán lovers. *Dukh* known in Músa Khél as *parai* or *manq*, and in Bárkhán as *káti* is also common among goats. The symptoms are the discharge of blood with the urine. The disease is fatal and no remedy is known except the *mullá's* charm. The flesh of a diseased animal becomes black, and is not fit for human food. The symptoms of *wuzmár* known also as *wuzmargae*, possibly pleuro-pneumonia, are a discharge of fluid from the nose, loss of appetite and eruptions on the lungs The animal moans painfully. It causes great mortality, and is very infectious. "A hundred goats," says the proverb, "are one meal for the *wuzmár*." A kind of inoculation is practised as a remedy for the disease, by taking a portion of the lung of a diseased goat, mixing it with equal quantities of powdered cloves, pepper, turmeric, aniseed, ginger and *khusáwza* and inserting the mixture in a slit made in the right ear of each of the remainder of the flock. In Duki an afflicted animal is killed and cremated and the remainder of the flock is made to stand and inhale the smoke. In *pún*, also called *garr* or itch, which is common to goats and camels, eruptions appear on the body of the animal followed by loss of hair. The usual remedy is to rub the body with *zarna*, an extract of the sap of the edible pine (*Pinus excelsa* or *nashtar*) mixed with bitter oil or fat, the preparation being also administered internally. Previous to an application of the *zarna* the ashes of *barar* (*Periploca aphylla*) are mixed with water and rubbed on the body. In Bárkhán mutton soup

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in which wheaten flour is mixed, is administered internally. Sometimes a decoction, prepared from the body of a decapitated snake, is given. In the same tahsíl, as an alternative remedy for *zarna*, the plant called *khattan* or *lúnak* is mixed with bitter oil and applied to the body. In *kuráb* (foot rot), known also as *khurao*, *kuráh* or *lang*, eruptions appear on the feet followed by loss of the hoof. The animal is muzzled and made to stand in mud. In Bárkhán another remedy is to apply the ashes of the *písh* (dwarf palm) to the affected parts. In Músa Khél a red thread is tied to the tail of the animal, and the remedy is believed to prove beneficial. *Khullok* is peculiar to camels, the symptoms being a cough and discharge of fluid from the eyes and nose. It is possibly acute bronchitis. The animal is branded near both ears.

Other diseases among sheep and goats are *garg* (malignant sore throat); *maknrai* or *jajak* said to be due to the presence of worms in the intestines, the remedy for both being pills of the *gambéla* (*Mallotus philippinensis*). For *zizhae*, which is characterised by eruptions on the tail, mouth and elbow, no remedy is known except charms. For *chinjai* or a swelling of the head and flow of water from the nose and mouth, the remedy is asafœtida which is pounded and put into the nostrils. *Pilra*, as it is called in Bárkhán, the symptoms of which are a low fever and loss of appetite, is so called because the flesh of the animal becomes yellow. It is probably jaundice. No remedy is known. Cattle suffer from the following diseases:—*Siraho* known also as *sírao* or *shariáb*, the symptoms of which are a cough and the flow of water from the nose, the remedy being branding; in Bárkhán the smoke caused by burning the fat of a diseased animal is inhaled by the remainder of the flock; *churimár* known also as *tak*, *tikae* or *gola* which is the swelling of one of the hind legs, there being no remedy for the disease, which is fatal; *gulkhand* which is diagnosed by the appearance of a gland in the throat; *barra* (Bárkhán) or fever, the remedies being to avoid exposure, cover the

animal with a blanket, tie twigs of the *sar* plant to its mouth, and give inhalations of the smoke of the *harmal*; *drobae*, which occurs in spring through eating grass wet with dew; the affected animal foams at the mouth and the remedy is the same as in *barra*, but the grass tied to the muzzle is in this case *sarghasi*; lastly *kundrézi*, in which the animal shivers and loses its appetite, a sort of rupture appears to have taken place beneath the skin near the ribs. Branding with hot stones on the ribs is the remedy. The diseases of the camel, besides those described above, include the following:—*marghak* (tetanus in fatal cases) known to the Isots of Músa Khél as *shomak*, in which the neck is distorted and the animal writhes; no remedy is known except that, in Músa Khél, a kid is killed, the contents of its stomach are mixed with molasses and water and administered to the suffering animal internally; *babo* in which the animal suddenly becomes unable to stand on its legs, branding is resorted to as a remedy; *spalghae* in which the belly swells and is warmed by fire made of *sarghasi* grass; *sarpázhae* which attacks young calves, branding being done near the nose and on the buttocks. In Bárkhán several camel diseases are recognised by their symptoms. They include *phiphri* in which the animal cannot breathe freely; *salokra* which causes constipation and loss of appetite, the animal pining slowly away; *garmai* which is caused by over-fatigue when the animal perspires excessively; *shímak* or *thairka* or paralysis of the hind portion of the body; *phori* or ulcer on the foot; *chháli* in which the neck becomes stiff; and *rindak* which is diagnosed by the discharge of blood with the urine. Branding is done in cases of *phiphri*, *shimak*, and *chháli*. In *salokra* the blood of a black sheep or goat is put into the mouth of the afflicted animal; in *garmae* leaves of *hena* (*Lawsonia inermis*) are steeped in water, and the decoction is administered internally or, as an alternative remedy, a mixture of water and alum is given, and in *phori* hot water is poured over the sore parts. For *rindak* no remedy is known

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in the case of male camels, but female camels are somewhat relieved by milking their udders over a smouldering fire.

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In 1901 Mr. C. B. Mellor of the Punjab Irrigation Department visited the Kharáshang plain in Sanjáwi to report whether there was any prospect of enlarging a water spring and carrying the water to irrigate a portion of the upper end of the plain. He recommended that trial wells should be sunk over a vertical stratum of rock which formed a cross wall near the springs in order to find out its depth below the surface upon which depended the amount of water-supply available. Trial wells were subsequently sunk and proved unsuccessful.

e Anambár od annel.

In the following year he reported on certain irrigation schemes* in the Duki tahsíl, the principal of which was to divert the flood water from the Anambár river into the Mánki plain. The Anambár river, during the four years ending with March 1906, gave on an average three winter and ten summer floods, some of these floods being very large. They last for a couple of days and do not, although muddy and discoloured, contain much heavy silt. The river has a large catchment area, and although there is no snow water available, the conditions are favourable for the storage of water. A very fine site near Manzai has been surveyed, and contoured, and a project will be worked out. Three sites for reservoirs in the Chamálang valley were investigated and roughly surveyed, namely, Upper Tarwal, Lower Tarwal and Karargoi, but the catchment area of the river is small and there is very little land. The Anambár reservoir site is in every way a much more important one.† The work on the flood channel was begun in 1903 and up to March 1906 a sum of Rs. 48,650 had been spent. It was intended that on the completion of the work, Hazára colonists should be brought in, but none have so far (1906) come forward to take up the land.

* Notes on certain irrigation schemes in the Thal Chotiáli District by C. B. Mellor (1902).

† Administration Report of the Public Works Department in Baluchistán for 1905-06.

Mr. Mellor also reported in 1902 on certain *káréz* sites between Gumbaz and Hosri in the Duki tahsíl. He was of the opinion that the most promising sites were in the neighbourhood of the exit of the Narhan valley from the hills; and that two or three *kárézes* would command exceedingly good land.

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Sources of irrigation.

The sources of irrigation are shown in detail, in table V, Vol. B, and include 39 streams, 157 springs, 116 *kárézes* and 6 wells (1905). The irrigated areas lie principally in the Sanjáwi and Smállan circles of the Sanjáwi tahsíl; the Duki tahsíl; and the Náhar Kot or the Leghári Bárkhán circle of the Bárkhán tahsíl. The Bori tahsíl possesses the largest number of *kárézes* in the District. It was roughly estimated that of the total amount of land under cultivation in 1904-5, the area under permanent irrigation was represented by 75 per cent in Bori, 29 per cent in Sanjáwi, 45 per cent in Duki, 35 per cent in Músa Khél and 11 per cent in Bárkhán.

The cultivable and irrigable area, and the sources of irrigation in the Sanjáwi and Bori tahsíls which have been surveyed, are shown in table VI, Vol. B.

Streams.

Out of the 39 streams 8 are in Sanjáwi, 8 in Duki, 12 in Músa Khél, 6 in Bárkhán and 5 in Bori. The total area under permanent irrigation from streams in 1904-5 was 9,125 acres in Bori. The principal streams in the District include in Duki, the Duki and Thal *viálas*, the former of which irrigates the Duki village lands, and the latter the lands of Yáru Shahr, Hazár Shahr, Khála Shahr, Baháwal Shahr and Wazír Shahr in the Thal circle; and the Naréchi which irrigates Zinda Rúd, Banhar and Rod Naréchi *mahál*. The Anambár affords irrigation to the lands of Wahvi, Dháki, Nimki, Jahángír Shahr, Mánzi and Talli Alif Mír Jánzai in the Lúni circle. The Toi, Karhér, Kharspún or Burkobj, Lang, Rod and Kingri are in Músa Khél. The Kohár or Bábai, Siáb, Mara, and Sehán are in Bori, the last named irrigating lands in the Wahár and Mékhtar circles. The Rod

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Wáhi, Kárin (Dhaola), Phar or Lahr Rakhni (Chang), Rod Baddi and Rod Bohri supply water in Bárkhán. By far the most important of these streams, and one which has led to frequent disputes and fights between the Umarzai Taríns and Dumars, is the Duki stream.

The stream or *viála* takes its source from springs in Bagháo near the village of Haryán. It flows through the Bagháo valley, Bagháo Tangi and Shinléz and emerges into the Duki valley. In 1884 when Duki was occupied, the *zamíndárs* made over one-fifth of the water-supply for the station, and this share was subsequently reduced to one-ninth when the troops were withdrawn. After the Government share has been taken the water is divided into 8 *chauths* or 70 *buts*, each *but* being divided into 28 *shingaras*. Each *chauth* is known by the name of the headman or *malik*.

The distribution in 1903 stood as follows:—

Ináyat Khán *chauth*	9 *buts*
Sado	9 „
Lalgahi	9 „
Mír Khán	9 „
Bábakar	8 „
Mian Khán (Wanéchi)	8 „
Baréch (Tarín)	9 „
Sáleh (Wanéchi)	9 „
Total ...	70

The water channel from the Duki water-mill, where the Government share is taken to the civil station, is also maintained by the *zamíndárs*. The Duki lands are divided into 4 *awáras*, 3 of which are cultivated alternately, the fourth known as Rabát is cultivated with the autumn crop only. Each *awára* is divided into 8 *chauths* according to the division of water. The land comprised in each *chauth* is divided among individuals by lot, for each crop.

The method of utilising the water of the stream is simple, a dam is thrown across the bed of the stream and the

water is led in open channels to the land. The dams (*wand*) are constructed jointly by the cultivators, labour being supplied in proportion to the shares in the water: they are only of a temporary nature, and are a species of breakwater made by driving piles into the river bed and filling up the spaces with mud, bushes, and branches of trees.

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Flood irrigation.

Dry crop cultivation both by rain and flood water is known by a common term, *wuchobi* as distinguished from permanent irrigation (*zindae*). These terms are known in Bárkhán as *déwapáni* or *dhaulapáni* and *kálápáni* respectively. The flood irrigation known to the revenue officials as *sailába* was, in 1905, roughly estimated to represent 70 per cent of the total area under cultivation in Sanjáwi, 55 per cent in Duki, 65 per cent in Músa Khél and 79 per cent in Bárkhán. The area purely under rain cultivation was similarly estimated to be 25 per cent in Bori, 10 per cent in Bárkhán and 1 per cent in Sanjáwi. The flood water of all the principal streams and hill torrents (*lah*, *lahar* or *shéla*) is gravitated to the embanked fields (*band* or *lath*) which have been already prepared for the purpose. The channels by which water is led to the fields are known as *wáh*. The most important flood streams are the Anambár and Thal in the Duki tahsíl, of which the former irrigates 18 villages in the Lúni and Lákhi circles, and the latter 3* villages in the Thal circle. Reference has already been made to the flood channel which is under construction by Government on the Anambár stream. The dams by means of which the water is raised are of a temporary nature and are carried away frequently by the floods.

Springs.

Of the 157 springs in the District, 57 are in Sanjáwi, 36 in Bori, 34 in Duki, 7 in Músa Khél and 23 in Bárkhán. In 1905 the area irrigable by springs, in Sanjáwi, amounted to 6,143 acres and in Bori to 5,042 acres. Among the principal springs may be mentioned the Chashma Pathán Kot (299 acres) and Chashma Mahol (289 acres) in Bori, and the Han

* Shéra and Ismáíl Shahr, Yáru Shahr, and Sadar Shahr.

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spring in Bárkhán. In the case of the larger springs, the water is led to the land by channels, but most of the springs are small and the water has to be stored in a reservoir before it is turned on the land. This is especially the case in the small hill springs known as *tsakhobae*.

Kárézes.

Out of the 116 *kárézes*, 66 are in Bori, 31 in Duki and 19 in Sanjáwi. The area irrigable by them in 1904-5 amounted to 21,858 acres in Bori, and 1,530 acres in Sanjáwi.

The *káréz* appears to be a very ancient method of artificial irrigation and indigenous to the country. There are ruins of old *kárézes* in the Bori tahsíl, which are ascribed to the Mughals.

As a source of irrigation the *káréz* is so important that the following account of it by Mr. R. D. Oldham, of the Geological Survey of India, may be quoted *in extenso** :—

"As the theory of the *karéz* is a matter on which much misconception is prevalent, it will be well to treat of it briefly. The ordinary explanation is that an 'underground spring' having been discovered, a series of shafts connected by tunnels is made, by which the water is brought out to the surface. This idea of an underground spring is extremely prevalent and owes its origin to the description of the natives, who have frequently told me that the water entered their *kárézes* from springs. I have scrambled through the underground passages of some of these *kárézes* to investigate the matter and have found, as might be expected, that the description is a natural but misleading one. In a few cases the *káréz* does appear to derive its supply from what may, without great impropriety, be called an underground spring. Such are the *kárézes* between Kuchlák and Baléli which are driven through impervious Siwálik clays up to the foot of a limestone ridge; it is not from the Siwálik clays that they could derive any supply of water, so it is probable that there are here springs issuing from the solid rock. A still more striking instance is a short *káréz*

* *Records of the Geological Survey of India*, Vol. XXV, Part I, 1892.

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at Kiráni driven, not into either of the fans which lie to the north and south of the village, but towards the hill where there is no stream valley of any size; yet this is not only the shortest but one of the most abundant *kárézes* I have seen; here, too, it seems probable that the water is supplied by a spring issuing from a solid rock. Such cases are, however, very exceptional, and, as a rule, the explanation, both of the real facts and of the origin of the misconception regarding the action of the *kárézes* is very different.

"As the *kárézes* are never lined in any way*, it is impossible to drive them through incoherent material charged with water; it would moreover be unnecessary to do so, as, if an incoherent bed of sand or gravel charged with water were once struck, the supply would amply satisfy the desires of the *káréz* diggers. The *kárézes*, then, after they enter ground charged with water, can only be driven through stuff which is rendered coherent by a greater or less admixture of cementing material. But this cementing material not only renders the ground firm enough to form the sides and roof of the tunnel, but lessens the permeability of the ground and, what we are more concerned with, makes it irregularly permeable. When the *káréz* is driven through such a deposit, the water will first of all drain away at those spots, where it is most permeable, very probably washing out the fine-grained matrix and forming a small channel penetrating the great or less distance from the sides of the tunnel. Into this channel water will percolate and, instead of oozing from the sides, enter the *káréz* principally at certain defined spots, giving rise to what are called springs. The origin of the commonly held idea is thus natural and easily explained, but to call these 'underground springs' is a misnomer and as misleading as it

* This statement is incorrect.—ED.

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would be to apply the same name to an ordinary 'surface well.'

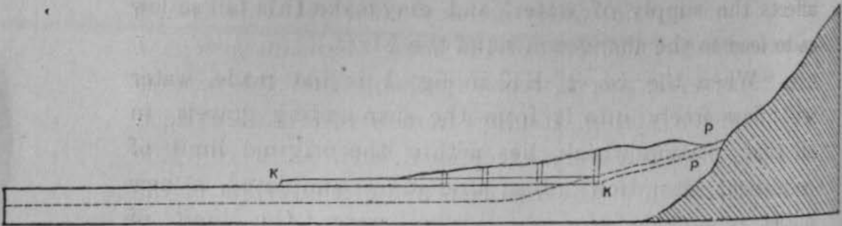


Figure 1.

"Having stated what is not, it is now necessary to describe what is the correct explanation of a *káréz*. In fig. 1, a diagrammatic section of one of the gravel slopes is represented, the dotted line PP represents the limit of permanent saturation; this is the limit below which the gravels are always charged with water even in the driest season. Such a limit exists everywhere, but the form of its contour depends on a variety of conditions, such as the rainfall, discharge of the streams at the head of the fan, permeability of the gravels, etc., which need not here be considered in detail. Now, if the *káréz* KK is driven into this slope, that portion of it which lies below the line PP will drain the sub-soil of its water and discharge this at the outlet.

"It will be seen from this that in its nature and mode of action the *káréz* is only a sub-soil drain; in both cases the object is to bring water, which lies underground, to the surface, the only difference being that in the one case it is desired to obtain the use, and in the other to get rid of the water.

"From the nature of the case these *kárézes* are affected by the rainfall in a marked manner—a single dry season and, still more, a succession of years of deficient rainfall, causes a diminution in the discharge of the *káréz*. Last year (1890) the falling off of water-supply was very widespread and, so far as diminished discharge was only due to the dryness of the season, was not altogether an unmixed evil, for it led to an energetic cleaning out and in some cases lengthening of the *káréz* which will improve its ultimate

capacity. In a new *káréz*, however, the failure may be due to another cause, which is more serious, as it permanently affects the supply of water, and may make this fall so low as to lead to the abandonment of the *káréz*. AGRICULTURE.

"When the *káréz* KK in fig. 1 is first made, water will flow freely into it from the surrounding gravels in all that portion which lies within the original limit of permanent saturation. But, after it is completed, a new outlet is provided for the sub-soil water, the limit of permanent saturation will adapt itself to the new conditions and ultimately settle down with a profile which may be represented by the line PPP. The subsequent history of the *káréz* will now depend on the relative importance of the causes which led to the sub-soil water originally maintaining its level along PPP. If the gravels were tolerably permeable and a considerable supply of water was constantly percolating through them, the *káréz* will settle down to a fair or abundant discharge. If, on the other hand, the amount of water percolating was very small and the level of permanent saturation kept up by the impermeability of the gravels, the ultimate condition of the *káréz* will be one of very small discharge.

"I do not know to what extent this cause of failing supply of water has acted, or is acting, but there can be no doubt that, except in the case of old established *kárézes*, it must, to a greater or less extent, be at work. I made many attempts to collect information which would bear on this point, but was baffled by ignorance, reluctance to impart the information, or an inability, real or pretended, to understand the points regarding which information was desired. I was unable even to arrive at a trustworthy conclusion as to whether the reputed diminution of supply was as common, or as extensive as was complained of, and this, when we consider how many reasons the proprietors have for complaining of a failure of water-supply and the absence of any inducement to acknowledge an increased discharge, is not to be wondered at.

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"As might be expected in a country where water is so valuable and apparently so mysteriously capricious in its occurrence, a class of men has arisen which pretends to a special knowledge of the underground distribution of water and to them the planning of new *kárézes* appears to be principally entrusted. I have not met any of these men, but so far as I can gather they seem in some cases to possess a certain amount of knowledge partly inherited, partly the result of observation, of the subject they profess. This is doubtless mixed up with a good deal of superstition, but as their directions are received with the same implicit belief as their rulers grant to the dictum of any self-styled 'expert,' the shaft, sunk on the spot indicated, is carried down till it reaches water, whereby the reality of his knowledge is proved. Meanwhile he takes care to conceal the knowledge, if he possesses it, that there was no special virtue in the spot selected, and that there are many other places where a shaft would be equally certain to strike water, if given the same chance. Should water not be found, his employer is probably informed—for there is a close resemblance between the various species of the genus expert—that he did not go deep enough, or that though water was not found just there 'the indications are very favourable,' he is recommended to try some other place near by and, if his patience or capital be exhausted before water is obtained, the expert, following the example of his kind, takes himself off to another country where his ignorance has not been exposed, there to find that ready credence which mankind is prone to yield to a plausible assertion of knowledge and, with better luck, repair his damaged reputation.

"The amount of labour spent on some of these *kárézes* and the depth of their numerous shafts is astounding; they are frequently miles in length and the shafts near their heads are said to be in some cases 150 feet deep. This is doubtless an extreme case, but, when examining the Quetta plain, I found that in many cases the shafts at the head of

those which drain from the hills, east of the valley, could not be plumbed with the 70 feet line I carried with me. These must have taken many years and cost a large sum to excavate, but it is probable that the whole was not made at once, and that they were gradually lengthened at their upper ends where they are the deepest out of the profits derived from the water which the original shorter channel yielded." AGRICULTURE.

The local experts in *káréz* digging are the trans-border Ghilzai Afgháns who come to the District in winter. They prefer this season owing to the severity of the climate in their own country and the convenience of working underground in winter. They generally work in parties of four, each party being technically known as a *charkh*. The name is derived from the "windlass" which forms the most important part of their equipment. The work is done either by contract for a lump sum, or on payment by actual measurement, and, while they are employed, the workmen are generally provided with food, tools, loin-cloths and lights by their employer. The tool chiefly used is a short pickaxe (*kulang*), which can be used by a man in a kneeling or crouching attitude. Details of the prevailing rates for *káréz* work will be found in the section on "Wages."

The excavation of a *káréz* is an expensive undertaking, and it is, therefore, generally constructed by a joint capital and owned by several co-sharers. In Duki, however, there are several *kárézes* owned by individuals.

In selecting a site for a *káréz* the excavators are guided solely by experience and have no scientific knowledge. Professional water-finders are known in the Ghilzai country, but do not visit this District. Generally a site is chosen along the banks of a hill torrent, or in one of the inosculating fans situated where a hill torrent debouches from the mountains into the valley. Note is also taken of the appearance of moisture after rain, and of the presence of moisture-loving shrubs and grasses. The next step is to dig a trial well (*gumána*), and if this proves successful other wells are dug

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and connected by tunnels (*lambúr*) until the water reaches the surface. If the ground is soft, the wells and channels are lined with stones (*sangchín*). Any proposal to sink a new *káréz* near to an existing one is regarded with great jealousy. The minimum distance to be left in such cases varies, but is generally from 200 to 500 yards.

The expense of digging a *káréz* is usually from Rs. 2,000 to Rs. 5,000, but in special cases the expenditure is known to have been even higher. The Government has encouraged the construction of such works by granting *takávi* advances, and by exempting such new sources of irrigation from payment of revenue for a term of years The principal *kárézes* in the District include the following: in Bori; Sháh Káréz Utmán Khél, Oryági, Káréz in Dirgi Kudézai, Dirgi Shabozai, Káréz Urd Shabozai, Dalezai Shabozai, Zangiwál, Sagar, Rodlín, Kach Ahmakzai, Sharan Hamzazai, Káréz Punga, Káréz Dilli and Kanurábád; in Duki the Habíb Káréz, Kamál Káréz, Lwangén Kárez and Yatím Káréz.

Maintenance of *kárézes* and water channels.

The *míráb*, where such a village official exists, and in other places the headman, makes the necessary arrangements for the repair of a *káréz*. If the work to be done is heavy, a *káréz kush* is called in and asked to give a rough estimate of the cost. The money is then collected from the co-partners, in proportion to the share held by each in the water, and the work carried out under the supervision of the *míráb* or headman. On the completion of the work, it is examined, the account is made up and any excess or deficit is adjusted. In Bori the usual practice is that a *káréz* is cleaned by professional or other labour, the work done is examined by the *malik* and the wages are determined in a lump sum with the help of two or three arbitrators. For work, which requires no special skill, the labour is provided by the co-partners. Open channels are cleaned by the owners themselves.

Wells.

The number of irrigation wells in 1905 was 6 (1 in Duki and 5 in Bárkhán). For purposes of irrigation the Persian wheel is used. Water is found at a depth varying from 10

to 40 feet and the cost of a well is estimated between Rs. 100 and Rs. 600. Wells are dug by trans-border Afgháns. The earthen pots (*tind*) and wood material (*tarkala* and *chakal chob*) are imported into Bárkhán from the Déra Gházi Khán District of the Punjab and generally a Punjábi carpenter is engaged to keep the well in working order. The indigenous cultivators are unacquainted with the art, and when a well falls into disrepair, it has necessarily to be abandoned for want of skilled persons to put it right.

Division of water.

Permanent sources of water are divided into a number of shares, the usual unit of division being the *shabána*, *shabánaroz* or *shabároz*, the flow of a day and night. The minor divisions of a *shabánaroz* differ in various parts of the District and those in commonest use are indicated in the following table :—

Músa Khél Tahsíl.

(1) Among the Jáfars the lowest unit is *ghari*:

4 ghari	=	1 pahar.
8 pahar	=	1 din-rát or 24 hours.

(2) Among the Músa Khéls and Isots the following measures are known in different places, the lowest units being *shapazham*, *nímcharík* and *atama*:

(a)	2 shapazham	=	1 pahar
	2 pahar	=	1 nímwiál
	2 nímwiál	=	1 wiál = 12 hours
(b)	2 nímcharík	=	1 charík
	2 charík	=	1 nímhor
	2 nímhor	=	1 hor = 12 hours
(c)	2 atama	=	1 tsalorma
	2 tsalorma	=	1 nímkai
	2 nímkai	=	1 wiál = 12 hours

Duki Tahsíl.

(i) In Viála Thal the lowest unit is the *shingari*:

2 shingari	=	1 nímkai
2 nímkai	=	1 yakht
5 yakht	=	1 wiál or uma
2 uma	=	1 shabároz or but = 24 hours

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(ii) In Viála Duki the lowest unit is the *nímkai*:

2 nímkai	=	1 yakht
$1\frac{3}{4}$ yakht	=	1 wiál or nímshabároz
2 wiál	=	1 shabároz = 24 hours

(iii) In the Anambár the lowest unit is the *yakht*: 4 *yakhts* make 1 *but* or *nímshabároz* (12 hours). No other measure is in use.

(iv) In Viála Mánki the lowest unit is the *shingari*:

6 shingari	=	1 nímkai
2 nímkai	=	1 wiál
2 wiál	=	1 shabároz = 24 hours

(v) In Kárézát Duki the lowest unit is the *shingari*:

There are 12 *shingaris* in a *shabanároz* or *haud*.

3 shingaris	=	1 tsaloram or barkh
6 shingaris	=	1 nímhaud
2 nímhaud	=	1 haud = 24 hours

Bori Tahsíl.

1. Utmán Khéls—

(i) The lowest unit is the *shungari* or *shungar*:

2 shungari or shungar	=1 shangar
2 shangar	=1 psha
2 psha	=1 nímkai
2 nímkai	=1 kandae
2 kandae	=1 tal or hor
2 tal	=1 puch=24 hours

(ii) The lowest unit is the *lasgún*:

2 lasgún	=1 shilgún
2 shilgún	=1 tsalwéshtgún
2 tsalwéshtgún	=1 wiál
2 wiál	=1 tal or 24 hours

2. Among the Kudézais the measures in use are—

(i) The lowest unit being the *pinzgún*:

2 pinzgún	=1 lasgún
2 lasgún	=1 shilgún

2 shilgún	=1	tal
2 tal	=1	shavároz=24 hours

(ii) The lowest unit is the *nímkai*

2 nímkai	=1	kandae
2 kandae	=1	tal
2 tal	=1	shavároz=24 hours

3. Hamzazais—

The lowest unit is the *lasgún*:

2 lasgún	=1	shilgún or kandae
2 shilgún	=1	tal or 24 hours

4. Sargaras and Zakhpéls—

The lowest unit is the *shingarae*:

2 shingarae	=1	psha or tsalorama
2 psha	=1	nímkai
2 nímkai	=1	wiál
2 wiál	=1	shavároz=24 hours

Sanjáwi Tahsil.

(i) The lowest unit among the Dumars is the *cháryak*:

2 cháryak	=1	bara
2 bara	=1	tsaloram or chaloram
2 chaloram	=1	nímwiál or nímgari
2 nímgari	=1	wiál
2 wiál	=1	shabánaroz.

(ii) In some villages the measure into which the *shabánaroz* is divided is known as *psha* which, as a rule, varies. For instance a *shabánaroz* consists of 8 *pshas* in Chalél Khalíl, of 6 in Sanjáwi, of 4 in Kachipásra, Uzhléz and Régora, and 2 in Mikhláwar.

(iii) In Pitáo and Nasak the lowest unit is the *shingari*:

2 shingaris	=1	psha
4 psha	=1	shabánaroz=24 hours

(iv) In Harián, Wani, Torwám, Shírín, and Biyáni, a *shabána* is divided into 2 *wakht*, *yal* or *wiál*.

(v) In the *mauza* of Androbi, a *shabánaroz* is divided into 4 *haud*.

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Bárhán Tahsil.

In Bárkhán the common unit is a *pahar* (3 hours):

4 pahar =1 junj

2 junj =1 rát or 24 hours.

In Jhalli and Nílra in Leghári Bárkhán, a *pahar* is divided into 2 *wandis*; a half *wandi* is known as *khuri*, and a *wandi* is also called *pér*. In the same villages, as well as in Vitákri, a *junj* is known as *but* and represents 8 *wandis*, whereas in Jahandún, Sangiáli and Kákor a *junj* consists of 12 *wandis*.

Method of reckoning time.

There are three methods of reckoning time, viz., during the day, by means of the position of the sun, and by the shadow thrown by an object, and by night by means of the stars. In the first case a sharer in a *shabánaroz* is made aware of the time at which he may open a cutting into his fields and allow the whole water of the stream to irrigate them, by observing whether the sun has topped a certain hill, or its light has struck a certain rock or other object on the opposite side of the valley, or its position in the sky indicates that one of the hours of Muhammadan prayer has arrived. In the second case the same knowledge is derived from the length of the shadow of his own person, or of a house or tree, or of a piece of stick cut to a certain length which he may carry about with him.

The actual distribution is conducted by the *míráb* or other person charged with the work. In Bori a respectable man noted for the integrity of his character is deputed by the villagers for the work; he is known as *manzgír* or mediator, receives no remuneration and his decision on all points relating to the division of water is accepted as final. The sun dial, as already stated, is mostly a sort of a guess work. During the night the cultivators are guided by the position of the moon and the stars. A particular star such as the north star which is visible throughout the year is selected. Its path across the sky is divided according to requirements, and each sharer of the water, whose turn falls

in the night, is acquainted with the situation of the star at which he is entitled to divert the stream over his own lands. The work of judging the time during the night is a much more difficult business, and is conducted largely by guess work. Owing to the variable position of the different stars the constellations are occasionally changed by the cultivators for purposes of calculation. Water is required most from March till the end of December and it is during this period that the *míráb* or *manzgír* has to keep a careful watch, and settle all disputes. Another method of dividing water, which prevails largely in all the principal streams in Duki, is that by means of the *taghar* or divide, known in Bárkhán as *káth*. The *taghar* is a wooden device having holes according to the number of the shares and is placed across the bed of the stream over well levelled ground. The water is taken subsequently through separate channels, and is turned on to the lands. For example, the Duki stream is divided into 8 *chauths*. The land comprising each *chauth* is divided at the time of sowing by lot. The village official called *tagharbán* generally remains in charge of the water-divide and is responsible to, and is remunerated by the cultivators for the proper distribution of the water. Turns of water are also arranged by drawing lots with sheep or goat dung, which are marked by the persons interested, mixed together and then drawn out. The turns thus determined remain in force either for a year or for a harvest. In Bárkhán and Bori when turns of water are first arranged it is usual to allow some extra time (*bhagwára* or *shinzi*) to the first man who irrigates his land so as to make up for the loss of water absorbed by the dry channel and the small pools in it.

Another system which may be mentioned here is that known as *laud*. During the autumn harvest the shares of a source of irrigation are reduced by one-half. For instance a *kárez* or spring which has 12 *shabánas* of water is treated as having 6 *shabánas* only. In this way every co-sharer gets

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a turn for irrigation every sixth day instead of every twelfth day. The advantage of this becomes manifest when it is borne in mind that the *kharíf* crop is one which requires a greater number of successive waterings than the *rabi*, and its cultivation is comparatively limited. When sources of irrigation have a small supply, the water has first to be stored in a reservoir before it can be applied to the lands. These reservoirs remain closed during the night, and are opened in the morning. Lastly may be mentioned the method of dividing water by means of a piece of graduated stick called *largitak*. When it is intended to portion out the water of a tank (*haud*) or cistern, the stick is placed in the mouth of the channel and share-holders take water according to its gradations.

Flood-water (*núz*) known in Bárkhán as *púr* is divided easily. The water of all the principal streams and hill torrents is diverted into a common channel by means of a dam. It is then portioned out into smaller channels each of which irrigates a particular tract. In the case of small torrents the whole water is utilised by means of a dam and is turned on to fields in the order in which they are situated. The custom which allows the lands higher up the stream to claim the prior right to irrigation is known as *sarwarkh*.

Water-mills.

Wherever sufficient water power exists, it is employed for turning water-mills. The latter numbered 91 on the 31st of March 1905. Of these 42 were in Bori, 26 in Sanjáwi, 22 in Duki and 1 in Músa Khél. The stones are locally obtained and are found in the Salyata and Gabar hill torrents and the Tiar hill in Músa Khél, the Siázgai hill in Bori and the Gartewála hill in Bárkhán. Bárkhán stones are considered to be the best. The cost of a pair varies from Rs. 20 to Rs. 30.

Water-mills are generally constructed below an artificial embankment (*wand*) along which the channel for water (*béla* or *hamoi*) is led. The flow of water is adjusted by

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a regulator (*párcháo*) at the upper end of the *béla*, and it reaches the mill through a water shoot (*tarnáwa*). The whole apparatus of the mill is enclosed in a mud hovel (*khúna*). Mills are generally constructed by the owners of the land and water and the initial expenditure varies from about Rs. 120 to Rs. 200. A carpenter (*tarkhán* or *ustákár*) is generally employed to carry out repairs and to dress the stones from time to time, and he receives remuneration in cash. The miller (*aséwán*) receives one sixth to one-eighth of the net earnings of the mill after the Government revenue has been paid. In Bori, in some cases such as in the Wahár circle, the *aséwán* receives monthly wages in cash at Rs. 2 to Rs. 2-8-0 besides his food. In Músa Khél people are not well acquainted with the construction of water-mills, and Ustránas of the Déraját are employed when necessary.

The outturn of a mill varies with the water-power. It is estimated at about 4 to 15 maunds in 24 hours, being highest in Bori and Duki where it is from 12 to 15 maunds in 24 hours. The charge for grinding (*muz*) is generally levied in the shape of a share of the corn to be ground and varies; thus in Músa Khél the charge is from one-twentieth to one-thirtieth in wheat, and one-fifteenth to one-twentieth in *juári* and maize. Crushed grain (*ardáwa*) pays one-twenty-fifth in wheat and one-twentieth in maize, *juári* and barley, while in Duki the charge is two or two and a half annas per maund of barley and gram. The cost of grinding flour (*maida*) is five annas per maund in Duki.

Hand-mills.

Where water-mills do not exist corn grinding is left entirely to the women, and is done with the quern or hand-mill (*méchan*), consisting of two grooved stones about a foot and a half in diameter. A pair of hand-mill stones costs from Rs. 2 to Rs. 6. In Bárkhán the poorer classes grind corn with hand-mills for wages which vary from five to seven annas per maund.

RENTS, WAGES AND PRICES.

Rents.

Reference will be found to the character of the tenures and tenancies in the District, in a subsequent section. As might be expected in a backward country in which the crops are liable to great variations, rent almost always consists in a share of the grain heap.

Produce rents, method of distribution of the grain heap.

The distribution is generally made on the principle of an assignment of a fixed share of the produce for each of the chief requisites of cultivation: the land, seed, bullocks and labour; in irrigated lands a further share is assigned for the water. Variations occur in different parts of the District, in the distribution of the produce on various kinds of land and a reference is made below to the rates generally prevalent in each tahsíl.

Músa Khél.

In the Músa Khél tahsíl, Government revenue is paid from gross produce, the landlord pays the village artisans from his share and the distribution between him and the tenants is as follows:—

Irrigated land.	Share of landlord.	Share of tenant.
(1) If the bullocks and seed are supplied by the landlord.	$\frac{5}{6}$	$\frac{1}{6}$
(2) If the bullocks belong to the tenant and the seed is supplied half by him and half by the landlord.	$\frac{2}{5}$	$\frac{3}{5}$
(3) If the bullocks belong to the tenant, seed is supplied by the landlord and labour is common to both.	$\frac{2}{3}$	$\frac{1}{3}$

In dry crop areas, if the tenant provides bullocks only he receives half, and if he supplies seed also, he receives three-fourths of the produce.

Bárkhán.

The rents generally prevailing in Bárkhán are as follows:

(1) In some irrigated lands if seed, bullocks and implements are supplied by the owner, and labour only falls on the tenant, after payment of the Government revenue and village services, two-thirds of the net produce go to the owner and one-third to the tenant. In other irrigated villages, and generally in dry crop areas, after deducting the

Government revenue and the wages of village artisans, the remainder is divided equally between the tenant and the proprietor.

RENTS, WAGES AND PRICES.

(2) If the landlord provides seed and the bullocks he receives three-fourths of the gross produce and one-fourth belongs to the tenant who is also given advances of money to be repaid at the end of the harvest. Government revenue and the wages of the village servants are paid by the landlord. If the tenant supplies stock, labour, and half the seed, after paying Government revenue and village servants from the gross produce, the net produce is divided equally between the two.

Well-to-do people, such as the Mazaránis and the Hindus who do not farm their own lands, generally give to the tenant a portion of the cultivated area, varying from one rood to one acre, as *wási*, i.e., free of rent. Under this system the cultivator is responsible for the Government revenue of such portion as he holds rent-free. The system applies both to irrigated and unirrigated land. Besides this, a tenant who is not well off is sometimes given a loan of from Rs. 20 to Rs. 100 free of interest. In some parts the lands are let for cultivation for a fixed period varying from 10 to 60 years, the tenant paying a fixed share of the produce after deducting the Government revenue and village servants' wages. The maximum rental is one-fifth and the minimum one-fortieth of the produce.

Duki.

For lands watered by the Duki stream it was difficult in pre-British days, to secure tenants, as the Dumars of Sanjáwi often cut off the water, and in the fights that ensued, tenants ran greater risks than the landlords; hence the tenants' wages were higher, and still continue to be so. The landlord finds the seed, and the tenant the labour and bullocks, both for *rabi* and *kharíf* crops and the Government revenue is paid from the gross produce.

After paying the following wages, etc., for each *shabá.laroz*, the produce of the *rabi* harvest is divided between the owner and the tenant in the proportion of ¾ and ¼ respectively;

RENTS, WAGES AND PRICES.

while for the *kharíf* harvest the tenant gets half a *jowál* or bullock load of grain as *tiár* or perquisite, in addition to the usual share of the produce :—

The usual wages paid are—

(1) 4 *ghínds*, i.e., 16 maunds of barley to the owner of the bullocks as wages (*urmazh*) for plough oxen ;

(2) 3 *ghínds*, i.e., 15 maunds of wheat to the tenants on account of their wages, known as *tiár* ;

(3) 5 *ghínds*, i.e., 25 maunds of wheat to the reapers on account of their wages, known as *hijára* ;

(4) Threshing charges at the rate of 4 to 6 seers per bullock per day for bullocks hired for the purpose;

(5) Village servants.

In a few cases recently, the share of the tenants, who supply labour and oxen, has been fixed at one-third of the net produce. In Habíb Kila, and *kárézát* in Duki, the tenant is paid nothing for *tiár* and his share is usually one-third of the net produce.

In dry crop areas such as Rabát and Jangal which have been reclaimed or are being newly brought under cultivation, the tenant has to supply bullocks, seed and labour, and pays the landlord one-tenth of the produce, after deducting village servants' wages and Government revenue.

Thal Circle.

Terms.	Irrigated area.	
	Share of landlord.	Tenant's share.
(1) If labour, bullocks and seed are provided by the tenant.	$\frac{1}{2}$	$\frac{1}{2}$
(2) If seed only is supplied by the landlord ...	$\frac{2}{3}$	$\frac{1}{3}$
(3) If seed and bullocks are supplied by the landlord.	$\frac{3}{4}$	$\frac{1}{4}$

Terms.		Rain crop area.	
		Share of landlord.	Tenant's share.
(1) If seed and bullocks are supplied by the landlord.	1st class land	$\frac{5}{6}$	$\frac{1}{6}$
	2nd " "	$\frac{4}{5}$	$\frac{1}{5}$
	3rd " "	$\frac{3}{4}$	$\frac{1}{4}$
(2) If seed alone is supplied by landlord.	1st " "	$\frac{3}{4}$	$\frac{1}{4}$
	2nd " " } 3rd " "	$\frac{2}{3}$	$\frac{1}{3}$
(3) When tenant supplies all necessaries ...		$\frac{1}{8}$ to $\frac{1}{11}$	as rent.

Government revenue, *mullá's* fees and village servants' wages are paid from the gross produce.

Lúni and Lákhi Circles.

Terms.	Rain crop area.		Irrigated areas.	
	Landlord's share.	Tenant's share of the net produce.	Landlord's share.	Tenant's share.
(1) If only seed is supplied by landlord.	½	½	½	½
(2) If seed and bullocks are supplied by the landlord.	¾	¼	⅔	⅓
(3) If the tenant supplies labour, seed and bullocks.	⅛ to	7/12	rent.	

Sanjáwi.

The distribution of produce between the landlord and the tenant in Sanjáwi is as follows:—

Terms.	Share of landlord.	Share of tenant.
(1) If the landlord supplies bullocks and seed and pays the Government demand.	⅘	⅕
(2) If bullocks and seed are supplied by the landlord, but the Government demand is paid by the tenant.	¾	¼
(3) If bullocks and seed are supplied in moiety by the tenant and the landlord and the Government demand is also paid by the landlord.	⅗	⅖
(4) Ditto ditto—but the Government demand is paid by the tenant.	½	½
(5) If bullocks and seed are supplied by the tenant and the revenue is paid by the owner.	½	½
(6) Ditto ditto—but the Government demand is paid equally by both.	⅖	⅗

RENTS, WAGES AND PRICES.

Bori.

In the Bori tahsíl the distribution is as follows :—

Terms.	Dry crop area.		Irrigated lands.	
	Landlord.	Tenant.	Landlord.	Tenant.
If the tenant provides labour only.	$\frac{3}{4}$	$\frac{1}{4}$	$\frac{4}{5}$	$\frac{1}{5}$
If the tenant supplies labour and bullocks.	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{2}{3}$	$\frac{1}{3}$
If the tenant supplies labour, seed and bullocks.	$\frac{1}{4}$	$\frac{3}{4}$	...	...

The Government revenue and other expenses are paid by both according to their share. In some villages, the tenants undertake to reclaim waste land, cultivate it for a term of years, and pay to the landlord one-tenth of the produce as rent.

Wages.

For purposes of payment, the Public Works Department has divided the District into zones, *first* within 70 miles; *second* between 70 and 170 miles; and *third* over 170 miles, from the Sind-Pishín State Railway, and has fixed the wages of skilled and unskilled labour in each zone. The wages of a cooly are 8 annas, those of skilled labourers vary from Rs. 1-4-0 to Rs. 1-8-0 a day.

Unskilled labour is seldom engaged by the people of the District. In the Bárkhán tahsíl, carpenters and blacksmiths are found in the large villages. Some of them have come from the Punjab, while a few local men have also learnt the art. Before the British occupation, a carpenter received 8 annas per diem in cash and his food. The maximum rate now is 12 annas, whilst that for a Punjábi carpenter is R. 1 with food. The blacksmith sometimes combines the occupation of a carpenter and receives 8 annas to 12 annas a day with food; the wages of a local mason are 8 annas a day.

Bricklayers.

Bricklayers are met with only in the Bárkhán tahsíl. They are paid in cash for small bricks at the rate of Rs. 1-8-0 per thousand, and for large bricks at Rs. 2-4-0 per thousand. Each bricklayer can earn about 12 annas a day.

A general labourer in Bárkhán gets 4 annas a day, while a field labourer gets 8 annas for himself and 8 annas to R. 1 for bullocks. In the Duki tahsíl the field labourer gets 4 annas a day and food, and if he provides bullocks, 8 annas and food. In Sanjáwi local labour, if engaged, is paid for at the rate of 6 annas to 8 annas a day. In Bori labourers are sometimes engaged by the month, and are paid from R. 1 to Rs. 1-8-0 per mensem besides their food. A woman who works as a field labourer gets about half the wages paid to a man. Domestic servants' wages vary from Rs. 7 with food to about Rs. 30 per mensem.

Reapers.

Reapers are engaged in Bárkhán during the *rabi*, but seldom during the *kharíf* harvest. Their wages vary according to the number of labourers available, and are paid in a share of the crop; the rate varying from one-sixteenth to one-sixtieth, or in grain from 4 to 11 seers a day. In the Duki tahsíl reapers are paid a fixed amount of grain (*hijára*), the rate in the Duki circle being 5 *ghínds* or 25 maunds per *shabánaroz* at the *rabi* harvest, and two *paths* or 3¾ seers of corn daily at *kharíf*; in other places wages are fixed by the day, the usual rate being 2 to 4 *paths* in Habíb Kila. If the landlord or the tenant takes part in the reaping, he gets the wages fixed for reapers. In the Bori tahsíl reapers are given 2 to 3 *kásas* of corn per day.

Mullás, Saiads, Sheikhs, etc.

There is generally a *mullá* in each important village and settlement, who conducts prayers, officiates at marriage, funeral, and other domestic ceremonies, gives amulets and sometimes imparts religious instruction to the village children. He lives by the fees, alms and *zakát* of the villagers. The ordinary share to be set apart for *zakát* is one-tenth of the produce of the fields, and a sheep or goat out of each flock of 40, but in these days the full amount is rarely expended in charities. The *mullá's* fee for *nikáh* (marriage ceremony) is annas 8 to R. 1. In Bárkhán he gets *sarwai* at the rate of one *topa* (5 to 5½ seers) of corn from each threshing-floor, and during *ramzán* two *paropis* (2¾ seers) of

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wheat from each member of a family—this is known as *ushar.* In some places in the Duki tahsíl the *mullá's* fees vary from 5 to 6 *ghínds* (25 to 30 maunds) of wheat annually. The *mullá* at Duki gets 14 *paths* of wheat and barley per *shabánaroz* at the *rabi*, and the same quantity of maize at the *kharíf* harvest. The *mullá* at Habíb Kila gets per *shabánaroz*, 14 *paths* of wheat and 6 *paths* of barley at the *rabi* and 8 *paths* of maize at the *kharíf*; a *zamíndár* growing *sháli* (rice) on his fields gives the *mullá* 12 *paths* of this grain in addition.

In some villages of the Bori tahsíl the *mullá* gets half a *shabánaroz* of the land and water of the village. Some flock-owners besides other charities give annually a sheep or goat from each flock as *zakát.*

There are four families of Saiads at Gwál Haidarzai in the Kila Saifulla tahsíl, whose present leading men are Musht Khán, Pae Gul, Mullá Abdul Azíz and Mehrbán. They are known as *mákri* Saiads and are said to possess the power to ward off locusts. The Khétráns of Bárkhán used to pay them annas 4 per house per annum, but in some places Rs. 2 to Rs. 3 are now paid by each village.

Four families of Sheikhs living at Hazár Shahr in Duki are known in Bárkhán as *nángén wála* Sheikhs, and their charms are said to be efficacious in curing snake-bite. They give enchanted salt which is dissolved in water and applied to the part bitten by the snake, it is also taken internally and sprinkled over holes in which the presence of serpents is suspected. Each cultivator's family in Bárkhán pays them one *path* (two seers) of wheat or *juári* annually.

There are also local Sheikhs in Bárkhán known as the Toyáni and Umriáni, who are held in respect by the Khétráns. The Dhara division of the Khétráns give one-sixtieth of the gross produce to the Toyánis; and the Ispánis and Phaliát give to the Umriánis the same quantity of grain. The Nánda-Náhar and Ispánis pay one-sixtieth of the gross produce to the shrine of Pír Mahmúd, to which shrine the

Lúni flock-owners also give a sheep per flock annually. The people of the *mauzas* of Jhali, Legahári Kot, Nílra and Jahándún give to the keepers or *mujáwars* of the Pír Lákha shrine one *topa* of corn as charity at each harvest. The *zamíndárs* of the Kharra lands give one-sixteenth of the produce of their land to the *mujáwars* of the Pír Jawand shrine, and those of Chacha have assigned to it 12 acres of land, as *waqf* or gift.

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In the Duki, Bárkhán and Músa Khél tahsíls, a fixed contribution or *khwara* is paid by the following villages, and in Duki the contribution is liable to revenue:—

Name of village.	Names of persons entitled to *khwara*.	Amount of *khwara*. Rabi.	Amount of *khwara*. Kharíf.	Remarks.
		Duki Tahsíl.		
Dry crop area of Shéra Shahr and Ismáil Shahr, Zarghúna China, Lahri China and Azmat China	Halím Sháh, son of Hasan Sháh of Mánki, and Saiad Dáda Sháh of Shéra Shahr.	Wheat 5 *paths* (10 seers) per *jora*.	Maize 5 *paths* (9 srs. 6 chs.) per *jora*.	Besides this, the *khwaradár* recovers about [illegible] bullock load of corn per *jora* in rain crop areas and per *shabánaroz* in irrigated lands. The Government revenue is taken on this share of the *khwaradár* at the threshing-floor. Both the Saiads get also *nálithuk* from these *mauzas* at the time of drilling wheat seed. 1 *path* of wheat per *jora* or *shabánaroz* as the land is *khushkába* or *ábi*.
Thal Viála...	Ditto and Wali Muhammad Akhundzáda of Yáru Shah.	Wheat 8 *paths* (16 seers), barley 8 *paths* (11 seers) per *shabánaroz*.	Maize 8 *paths* (15 seers) per shabanaroz.	
Khushká ba Jhalár Kalán and Yáru Shahr.	Akhtar Sháh, Fazal Sháh and Hazár Shah.	8 seers or 1 *kása* per *jora* ...		The *khwara* is recovered from the Hasnis at this rate for all three, who divide the produce among themselves equally. Each of these three men gets ½ a bullock load of corn stalks at each harvest. *Batái* is taken from the share of each.

Name of village.	Names of persons entitled to *khwara*.	Amount of *khwara*.		Remarks.
		Rabi.	Kharíf.	
		Duki Tahsíl.		
Mánki ...	Dád Muhammad Akhundzáda of Chotiáli.	14 *paths* wheat per *shabánaroz.*	14 *paths* maize per *shabánaroz.*	
Duki village, irrigated lands.	Mírak Sheikh of Duki.	Wheat 8 *paths*, barley 8 *paths* per *shabánaroz.*	8 *paths* maize per *shabánaroz.*	In the dry crop area of the Duki *mauza* Mírak gets 1 *path* after every *ghind* of produce (i.e., 2 seers after every maund).
Habíb Kila	*Mujáwar* of the shrine of Sheikh Brahím, Nána Sáhib, and Mírak Sheikh of Duki.	8 *paths* of wheat per *shabánaroz.*	4 *paths* maize per *shabánaroz.*	
		Bori Tahsíl.		
Wahár Khurd and Kalán.	Machakh, Násar, Pándar, and Mullá Nék.	7 *kása* per *tal* on each crop, R. 1 on each marriage by the bridegroom's party, and on the birth of a male child.		
Kanra Khurd, Kanra Kalán and Sarbolak.	Sheikhs Balai and Jamál.	2 *kása* on each crop per house, R. 1 on marriage by the bridegroom's party and on the birth of a male child.		
Utmán Khéls	Háji Khan, Nékozai.	1 *kása* of wheat per family, and one sheep per flock, annually.		
Hamzazais	Storízai, sub-section of Hamzazais.	R. 1 on each marriage by the bridegroom's party.		
		Músa Khél Tahsíl.		
Drug ...	Sheikhs Azím and Jamál.	One sixtieth of the produce.		

Sheep and goat, camel and cow herds.

In Músa Khél, Duki, Bori and Sanjáwi, a shepherd or goatherd is engaged for two periods from October to May, and June to September. Wages (*paro*) for the latter period are, in addition to food, Rs. 5 to Rs. 15 in cash, or 4 to 6 female kids per flock and one-fourth of the wool shorn in Septem-

ber. For the winter he gets food; one-sixth of the male, and one-twentieth of the female young born during the season; and also one-fourth of the wool shorn in April. These wages are called *lwazhaghai*.

The Lúnis and Jáfars give to the shepherd one-sixteenth, instead of one-twentieth, of the female kids born in the first period and Jáfars pay one-seventh of the wool shorn in the year. No wages are demanded or paid for he-goats and rams. When near home the shepherd is given cooked food, but away from home, he receives 40 seers of wheat per mensem for himself and his dog.

The camelherd gets R. 1 yearly per camel besides food, and is not entitled to any share of the wool.

Each *zamíndár* gives to the cowherd 1 seer of wheat or maize monthly, and at each harvest 2 seers of corn per cow. In good years when prices are low the amount of wages in kind is doubled.

Bárkhán.

In the Bárkhán tahsíl a shepherd gets, besides food, from Rs. 5 to Rs. 20 per annum in cash. When the lambs are a year old, the distribution takes place between the owner and the shepherd in the following manner. Of the male lambs, the shepherd takes one out of the first seven and one-sixth of the remainder. Of the female lambs, he takes one out of the first seventeen, again one from the next sixteen, and lastly one-fifteenth of the remaining young stock. He also gets one-sixth of the wool. Rates of wages in cash vary according to the number of animals, the larger the number, the less the amount paid, as the grazier gains in lambs and wool. The *ním-súdi** and *péréli* systems of grazing goats and sheep are also prevalent in the tahsíl. Under the *ním-súdi* system, sheep and goats are let to graziers for a term of one year or longer. At the end of the term, the full number of goats and sheep given to the grazier are returned to the owner, any deficiency being made good out

* *Ním-súdi* means the bargain in which the profit is divided half by half, and *péréli*, the bargain in which one out of the four feet of each animal goes to the shepherd.

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of the young stock. The lambs and kids are then divided equally between the owner and the grazier. Wool is also similarly divided. Under the *péréli* system, animals are given for grazing for four years. At the end of the term the grazier gets one-third of the male, one-fourth of the female young, born during the term, and one-fourth of the wool.

A camelherd gets annually R. 1 for each animal grazed.

When the animals are taken away every day for grazing, from the houses of the villagers, the rates are as follows:—

When all the cattle belong to one person, the cowherd gets, besides his food, Rs. 10 to Rs. 16 in cash annually. If the animals belong to different persons the rates are—for sheep and goats, 1 seer of corn per head monthly; for cows or oxen, 1¼ seers of corn per head monthly; for buffaloes R. 1 and 1 *topa* (5½ seers) of wheat per head annually. Calves one year old and buffalo calves two years old are grazed free. In a few places, the rates for calves are the same as those for cows.

The *ním-súdi* system already mentioned also prevails among the Hasnis. But the method of distribution is somewhat different, compensation for animals lost by death or otherwise during the term is exacted, at the rate of three ewes for every two sheep, and lean and sickly sheep are similarly replaced. The sickly and lean sheep, together with the young ones born during the term, are then equally divided between the owner and the shepherd. The shepherd gets no cash or food from the owner, but is entitled to *ghí* and milk, and also to half of the wool shorn. The system known as *péréli* in Bárkhán prevails among the Hasnis under the name of *chauth*, and the grazier at the end of the term receives one-fourth of the total flock including the young. *Ghí* and milk belong to the shepherd, but he gets no cash wages or food. This system is also extended to cows when they belong to a single person. At the expiration of

the term one-fourth to one-sixth of the calves born go to the grazier and the remaining to the owner.

Blacksmiths and carpenters.

Except in the Drug circle, there are no carpenters in Músa Khél. The Jáfars and Kharshíns pay the blacksmith or carpenter for his services, at the rate of one-fortieth of the agricultural produce. In other parts of this tahsíl a blacksmith is paid at the rate of 3 *kásas* of wheat, 3 or 4 *kásas* of maize or *juári* per *jora*, and a piece of dried meat. The Laharzai-Músa Khéls also pay him every alternate year R. 1 or one kid in addition to the above remuneration.

In Bárkhán the occupations of carpenter and blacksmith are carried on by the same individual. He makes all implements of husbandry, and repairs them. Petty repairs to household furniture are also done by him. His wages vary from one-thirtieth to one-fortieth of the produce after the Government revenue and the ploughing charges have been deducted from it. Besides this, he gets 2 *paròpis* ($2\frac{3}{4}$ seers) of wheat at *rabi* and the same quantity of maize at *kharíf* sowing, and at the harvest 1 *topa* (5 seers) of wheat or 1 or 2 *topas* of maize per *jora*. He also receives 8 annas in cash annually from each *zamíndár* for meat, 8 annas to R. 1 on the birth of a male child and on the occasion of a betrothal, and Rs. 4, one sheep and sometimes also a *topa* of corn when a marriage occurs.

In Duki the rates of wages of blacksmiths and carpenters vary in each circle. Details are given below:—

In the Duki village the blacksmith gets 18 *paths* of wheat, 18 *paths* of barley and 20 *paths* of maize per *shabánaroz*; and the carpenter one *path* less; while the rate in Habíb Kila and other *kárézes* is 14 *paths* of wheat, 6 *paths* of maize or 8 *paths* of rice.* In the rain crop areas of this circle, each of these artisans gets one *path* after every *ghínd* of produce, i.e., 2 seers for every 5 maunds.

In the Thal circle, the carpenter and blacksmith each get, from the produce of a *jora* of land in dry crop areas,

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* A *path* of maize is 1 sr. 14 chs. and a *path* of rice 10 chs.

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17 *paths* of wheat and the same quantity of maize if grown, whilst in irrigated areas, he gets 17 *paths* of barley as well.

In the Lúni circle the same person combines both the duties and gets as his wages, in dry crop areas, one-twentieth of the *rabi* and *kharíf* produce. In irrigated areas he gets ½ *ghínd* (2½ maunds) of wheat per *shabánaroz* at the *rabi* harvest, and one-twentieth of the produce from the *kharíf* harvest. In Chotiáli, Hosri and Wárézai he receives a piece of dried meat and the wool of two sheep in addition to the above.

In the Lákhi circle, the wages of a blacksmith-carpenter are one-fortieth of the produce of each harvest, and a piece of *parsanda* meat, while in Bezáwar and Taláo which lie on the Hamzazai border he also gets three *kásas* of grain from each grain heap, as he has to travel a long distance to repair implements.

In the Sanjáwi tahsíl there are no carpenters. The few blacksmiths who make implements of husbandry for the agriculturists are paid, as wages, one-twentieth of the produce after deducting the Government revenue. The Bori tahsíl has no carpenters. Each section has generally got a separate blacksmith who makes all implements of husbandry and gets ½ a *shabánaroz* from the common tribal land and water. In some villages he gets a fixed share of 5 *kásas* (a *kása* of 3½ seers) of grain per plough and a piece of dried meat.

Threshers.

In the Duki tahsíl threshing charges are paid from the grain heap at 2 or 3 *paths* (4 or 6 seers) per ox employed.

Tagharbáns and *mírábs*, etc.

In some parts of the Bárkhán tahsíl a person who cleans the water channels and looks after the supply of water, gets from one-fifteenth to one-eighteenth of the produce as his wages.

In lands irrigated by the Duki, Thal and Anambár streams in the Duki tahsíl, a *tagharbán* is appointed for each *chauth* to distribute the water. In the Duki village his wages are two *paths* of wheat and barley per *shabánaroz*

annually; in the Thal Viála 4 to 5 *ghínds* of corn at *rabi*, and about 2 *ghínds* of maize at *kharíf*, from every *chauth*.* The proprietors of every three *chauths* of Anambár Viála give to the *tagharbán* from 6 to 8 *paths* of wheat per *but* for *rabi*, but during *kharíf* a *tagharbán* is seldom appointed. The *tírao* or watcher, who looks after the Duki stream, is appointed annually and is paid 30 to 40 maunds of wheat for the year.

In the Bori tahsíl each stream has a *míráb* who looks after the clearing of the channels and supervises the new excavations. This duty is generally performed by a village headman who is given an additional share from the common land and water.

Crop watchers.

Several of the *zamíndárs* in irrigated areas in the Bárkhán tahsíl join together and engage a crop watcher during the *rabi* harvest; this man gets from 2½ to 5 maunds of corn from the common grain heap after the Government revenue has been paid, each *zamíndár* contributing according to the size of his field.

Zagharoi (watchers) are also engaged in the Duki tahsíl, and are paid their wages per *jora* or *shabánaroz*. In the Duki village 7½ maunds of wheat and 3 maunds of barley at *rabi* and a *jowál* or *ghínd* (4 maunds 36 seers) of maize at *kharíf* are paid for every *chauth* of land and water.

Doms.

Doms or minstrels are found in the Bárkhán and Duki tahsíls and among the Jáfars of Músa Khél. They act as drummers on festive occasions, and perform other menial duties. Guests attending the festivities present the *dom* with a piece of cloth or some grain. The drummer also gets from the hosts 3 or 4 yards of cotton cloth for a turban. On marriages he also gets the old clothes of the married pair, besides cash (from R. 1 to Rs. 10) and food for two or three days. In the Duki village the *dom* gets per *shabánaroz* 8 *paths* of wheat and barley at *rabi* and the same quantity of maize at *kharíf*. The *dom* at Habíb Kila gets 8 *paths* of wheat at the *rabi*

**Chauth* is a group of shareholders. A *but* is a share of water.

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harvest and 4 *paths* of maize at *kharíf*; if rice is grown, he also receives 10 *paths* from that crop. In other circles of the Duki tahsíl *doms* get no share of the produce except a *push-tára* or a man's load of ears of corn, on which he has to pay Government revenue. The Jáfars give their *doms* a *topa* of corn from the grain heap at each harvest.

Kárêz and well diggers.

The trans-border Afgháns, chiefly Ghilzais, who visit the District in winter, are employed in *káréz* digging in the Duki and Bori tahsíls. They generally work in parties of four and, in addition to such other payment as may be agreed upon, usually receive food from their employer. This consists of one maund of *atta*, one-fourth of a seer of tobacco and R. 1 in cash per month per man, in Duki. A loin-cloth is also supplied by the owner. In Bori it is usual to give 5 *kásas* of wheat and the same quantity of *juári* and R. 1 in cash to each labourer per month. Sometimes a sheep is also given for meat. The owner also supplies the windlass (*charkh*) and all other tools required for the work. The work is generally given on *ijára* (contract), and payment by the piece is unusual. Important repairs are executed on similar terms. The rates vary according to the nature of the soil in which the *káréz* is excavated and the following, quoted by the tahsíldár of Duki, may be regarded as fairly representative:—

	Rs.	a.	p.
Well and tunnel in hard soil, 1½ yards to 2 yards	1	0	0
Well and tunnel in soft soil, 3 yards ...	1	0	0
Tunnelling, 2 yards to 2½ yards ...	1	0	0

In fixing the amount of *ijára*, no regard is paid to the depth of the well, or the height and width of the tunnel.

Well digging.

In Bárkhán the *zamíndárs* dig their own wells, but sometimes employ Ghilzai and Shinwár labourers for the purpose. The owner has to supply all the implements required for digging, as well as the blasting powder. The rates vary according to the nature of the soil in which the well is to be dug and to the number of labourers available at

the time of commencing operations. Lump payments are occasionally made, but the most common system of payment is that by the yard, and the wages usually given are as under:—

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Irrigation wells (diameter 8 feet), if water comes out.	Rs. 2 per *kháni* yard (4 feet) and food.	
Irrigation wells (diameter 8 feet), if water does not come out.	R. 1	ditto.
Drinking wells (diameter 4 or 5 feet), if water comes out.	" 1	ditto.
Drinking wells (diameter 4 or 5 feet), if water does not come out.	" 0-8	ditto.

If the soil is hard and stony, the above rates are raised by 50 per cent or even doubled. These rates are, however, now being discarded in favour of daily wages of three or four annas a day per labourer, besides food.

Prices.

Wheat and *juári* are the staple food grains of the District. The prices of these articles, as well as of salt, for the 12 years ending with 1904, for the headquarter stations of tahsíls, are shown in table IX, Vol. B. The average price of wheat in the District, during the quinquennial period ending with 1897, was $19\frac{7}{10}$ seers per rupee, the highest rate being 22 and the lowest $16\frac{3}{4}$ seers. In the same period the average price of *juári* in the three tahsíls of Bori, Bárkhán and Músa Khél was 19 seers. In 1904 the average price of wheat was $18\frac{1}{2}$ seers and of *juári* 25 seers. Prices are much affected by drought, and such was the case in 1900, when the price of wheat in Loralai averaged from $9\frac{1}{4}$ to 10 seers to a rupee. The agricultural produce is naturally very small in years of drought, and the prices rise abnormally. The railway, which is one of the great equalisers of prices, has not yet entered the District. Agricultural conditions in the neighbourhood, however, have a great effect on prices, e.g. if the rates rise in Déra Ghází Khán, Zhob or Quetta, on account of famine, drought or other causes, the prices of staples are sure to rise in the

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District; to quote one example, in 1897-98 the price of wheat at Déra Gházi Khán was 10 seers 11 chittacks and at Bárkhán 10 seers in the last week of July and 11 seers in the first week of February. The rates per rupee for the principal necessaries at different periods previous to 1893 are shown below :—

Article.	Thal. 1882.	Bori. December 1887.	Duki. November 1887.	Sanjáwi. 1885-86.
	M. S. C.	M. S. C.	M. S. C.	M. S. C.
Atta	0 10 0	0 6 12	0 8 0	0 20 0
Wheat	0 16 0	...	0 10 0	0 30 0
Firewood	1 13 0	1 0 0	4 0 0	...
Barley	0 11 8	0 8 8	0 10 0	...
Juári	0 16 0	0 12 0	0 16 0	1 20 0
Bhúsa	...	0 26 8	...	...

Before the British occupation, in an average year, the rates in Bori were as follows :—Wheat one maund per rupee, *juári* one maund and twenty seers per rupee, and maize one maund and twenty seers per rupee. In a year of famine, however, the people of Bori say, the rate of wheat rose as high as 3½ seers per rupee. In Bárkhán information obtained from the Hindu shop-keepers indicates that the average price of wheat per rupee from 1856 to 1887 was 31 srs. 14 chs. and from 1888 to 1892, 18 srs. 4 chs., the highest being 3 mds. 38 srs. in 1858, and the lowest 5 seers in 1860 and 6¼ seers in 1864. In Duki the price of wheat was one rupee a maund in 1863.

WEIGHTS AND MEASURES. Measures of weight.

Indian weights, with a seer of 80 *tolas* and a maund of 40 seers, have been introduced in all tahsíl headquarter stations of the District, and the weights now in general use in these places are those of 5 seers, 2½ seers, 2 seers, 1 seer, ½ seer, *páo* or ¼ seer, *adh páo* or ⅛ seer, chittack and half-chittack. Bulky articles such as coal, fuel and fodder are dealt with by

the maund of 100 pounds. Spring balances are also used by some of the shopkeepers, but the people of the country still mistrust this method of weighment. WEIGHTS AND MEASURES

Troy weights.

The weights used by goldsmiths are those in use in other parts of India, the lowest unit being a *ratti* ; 8 *rattis* make a *másha* and 12 *máshas* one *tola*. The rupee, eight anna, four anna, and two anna pieces are also used as weights, representing respectively one *tola*, 6 *máshas*, 3 *máshas* and a *másha* and a half.

Measures of grain.

Outside the Loralai town and other bazars, grain is still sold by wooden measures and not by weight, these measures being of different capacity in different parts of the District. The following are the measures in ordinary use :—

(*a*) *Músa Khél Tahsíl.*

I—Drug circle, *pánr*.

4 pánrs = 1 paropi.
4 paropis = 1 topa.
4 topas = 1 pái.
4 páis = 1 choth.
2 choths = 1 khái.
8 kháis = 1 path.

II—Other parts, *kurwai*.

4 kurwais = 1 path.
2 paths = 1 kása or ozhae.
40 kásas = 1 ghínd.

(*b*) *Bárkhán Tahsíl, pánr.*

4 pánrs = 1 paropi.
4 paropis = 1 topa.
10 topas = 1 jholi.
2 jholis = 1 ána or anda.
2 ánas = 1 khái.
1½ khái = 1 tre-ána.
2½ kháis = 1 pánchána.

(*c*) *Duki Tahsíl, thúla.*

2 thúlas = 1 tsloram.
2 tslorams = 1 topa.

WEIGHT AND MEASURES.

2 topas	=	1 path.
25 paths	=	1 zoli.
2 zolis	=	1 anda.
2 andas	=	1 ghínd.

(*d*) *Sanjáwi Tahsíl.*

The *path* measure is used only in the Púi and Bagháo circles. In Púi 3 *paths* make one *kása* and 200 *paths* make one *ghínd* or *chhatti*. In the Smállan and Sanjáwi circles the unit of measure is a *kása*, in Smállan 120 *kásas* make one *ghínd* or *chhatti*, but in the Sanjáwi circle, 80 *kásas* make one *ghínd* or *chhatti*. In Bagháo there is no higher measure than the *path*.

(*e*) *Bori tahsíl, kurwai.*

4 kurwais	=	1 path.
2 paths	=	1 ozhae or kása.
40 kásas	=	1 ghínd.

The *jholi*, *ána*, *khái*, *tre-ána* and *pánchána* in Bárkhán, and the *zoli*, *anda* and *ghínd* in other tahsíls, are merely nominal amounts, the wooden measures in ordinary use being the *kurwai*, *path* and *kása* or *topa*. The capacity of these measures varies in different parts of the District.

In the Músa Khél tahsíl a *kása* of wheat weighs 4 seers, and a *topa* in Drug contains 5 seers: in the Bárkhán tahsíl a *topa* weighs $5\frac{1}{2}$ seers but for purposes of revenue it is calculated at 5 seers; in the Sanjáwi tahsíl a *kása* varies from $3\frac{1}{4}$ to $3\frac{1}{2}$ seers and a *path* from $1\frac{1}{4}$ seers to 2 seers; in Duki a *topa* contains one seer and a *path* 2 seers; and in Bori the *kása* varies from 3 to $3\frac{3}{4}$ seers. The weight also varies with different kinds of grains.

Miscellaneous measures.

A fistful of grain in Bárkhán and Sanjáwi is called a *lap*. A handful of corn is a *buk* or *mangul*. A man's load is termed *bharota* and a bullock's load is *lad*. A bullock can carry one *khái* or 5 maunds.

Linear measures.

In the towns and bazars the standard yard of 16 *girahs* or 36 inches is used, but the people of the country still employ the cubit (*hath*). The *hath* is an indefinite

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measure, which varies with the stature of the customer, and is measured from the projecting bone of the customer's elbow round the end of the middle finger when extended straight and back to the lower knuckle joint. Two such *haths* make a yard. The *sharai* yard, about $2\frac{3}{4}$ feet, is also in use in Duki, but is now being replaced by the standard yard. A *khâni* yard, which is about 4 feet long, is used in Bárkhán for measuring the depth of wells dug.

Superficial measures.

During the settlement of the Sanjáwi tahsíl and the survey of the Bori tahsíl the measures adopted were acres, roods and poles, and these measures are quoted in the tahsíl revenue papers. The people in villages close to tahsíl head-quarters are beginning to know them, but in the greater part of the District, irrigated land is known by the proportion of water attached to it, while unirrigated land is sold by *joras*, *yavgis* or *bands**. Thus the land and water under a permanent source of irrigation are both divided, and an amount of land is recognised which is attached to a *shabánaroz* of water or other minor division. The term *jora* or *gholba* is frequently used, but has no definite value, merely denoting the amount of land that can be ploughed by a pair of oxen in twelve hours.

Measures of time.

Chiefs and headmen, who frequently come in contact with Government officials, know the English months but in the greater part of the District the Muhammadan lunar year is still observed by the indigenous population. The Arabic names of the months and their local equivalents are given below :—

Arabic name.	Local name in the 4 Pashtú speaking tahsíls.	Local name in the Bárkhán tahsíl.
Muharram ...	Hasan Husain	Waha.
Safar	Safar or Sapar	Safar.

**Jora*—Land which can be ploughed in 12 hours.
Yavgi—A plough.
Band—Embanked field.

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Arabic name.	Local name in the 4 Pashtú speaking tahsíls.	Local name in the Bárkhán tahsíl.
Rabi-ul-awal ...	Urmai Khor or Urmi Khor	Wadi bhénr.
Rabi-us-sáni ...	Dom khor or Doyam khor ...	Eánwi bhénr.
Jamádi-ul-awal ...	Dréam khor	Triji bhénr.
Jamádi-us-sáni ...	Tsloram khor or Istri khor	Chauthi bhénr.
Rajab	Khudai miásht or Khudai Tála miásht.	Khuda-dá-máh.
Shabán	Sabrat, Usra or Asora ...	Rasúl-dá-máh.
Ramzán ...	Roza or Ramzán ...	Rozé-dá-máh.
Shawál	Halak Akhtar, Halak Id or Kam Id.	Nandhri Id.
Ziqád	Manz Mián ...	Wanjh.
Zilhaj	Loe Id, Loe Akhtar, Id Kalán.	Wadi Id.

The Hindus recognise the months used by their brethren in other parts of India, the year beginning with *Bisákh* and ending with *Chét.* The Jáfar Afgháns and the Kharshín Saiads also know the Hindu months with this difference that they begin the year with *Chét* and end it with *Phágun*; *poh* is known by them as *kála chilla* and *mángh* as the *dhaula chilla*.

Friday is the first day of the week, and the local names of the days are as follows :—

English name.	Khétráni and Jáfaraki name.	Pashtú name.
Friday	Juma* ...	Juma.
Saturday	Sakni	Hafta.
Sunday	Dahrái	Yakshamba (Amáratta by Isots).
Monday	Sanwár ...	Do Shamba.
Tuesday	Angára ...	Seh Shamba.
Wednesday	Rabba	Chár Shamba.
Thursday	Khamís ...	Panj Shamba.

* Jáfars call Friday *adina*.

The day (*wraz*) and the night (*shpa*) are divided into the following parts :— WEIGHTS AND MEASURES

Pashtú name.	Khétráni name.	Jáfar name.	Explanation.
Spéde ...	Dohmi ...	Dáng ...	Dawn.
Loe Sahár ...	Nimáz Wakat	Andhári Nimáz	The period a little before sunrise.
Sahár... ...	...	Pardi Nimáz ...	Morning.
Nimar tsarak ...	Sujtik ...	Sujchirik ..	Sunrise.
Barazar or tsásht	Mál Sanjran da wakat.	Uthánr ...	About 10 A.M.
Gharma or tákanda gharma.	Mánjhand ...	Paki Mánji ...	Noon
Ghatmápashín or ziwál.	Chhaon Walian	Uchapéshín ...	After 1 P.M.
Mápashín ...	Péshín ...	Pardapéshín ...	The period from 2 to 4 P.M.
Mápashín Kaza ...	...	Jikapéshín ...	About 5 P.M.
Mázigar ...	...	Dígur ...	5 P.M. to sunset.
Máshám ...	Namashám ...	Nimázshám ...	An hour after sunset.
Mástkhwan ...	Khuftan ...	Khuftan ...	9 to 10 P.M.
Widghal ...	Khuftan ...	Morapahar ...	About 11 P.M.
Níma shpa ...	Adhrát ...	Adhrát ...	Midnight.

Before the British occupation the rupees in use in Bori were (1) the *kaldár*, Kábulí, equal to 12 annas, (2) the *nukrae* rupee from Kábul equal to one-third of a *kaldár*. Currency.

In Músa Khél the Mehrábi rupee was used, it was worth about 11 to 14 annas of the current coin. In Bárkhán the coins in general use, before the advent of the British, were (1) the *kaldár*, and a few old coins, such as the Mehrábi, Shujáwli, Bagru and Nának Sháhi..

At the present time Indian money is exclusively used throughout the District. Except in Bárkhán the pie or half pice are seldom used and the people have, therefore, no names

WEIGHTS AND MEASURES.

for them. In Bárkhán a pie is called *kasíra* and a half pice *dhéla*. The names for other coins are given below:—

Bárkhán Tahsíl.			*Other Tahsíls.*
Pice	= Lákha paisa	...	Paisa.
½ anna	= Taka or Ba paisa	...	Double paisa or Loe paisa, tanga (Músa Khél).
1 anna	= Ana, adh Sháhi	...	Ana.
2 anna piece	= Ba-ani	...	Sháhi or Sháhigi.
4 anna piece	= Bita	...	Pao, paulae, misqáli.
8 anna piece	= Hubása	...	Abási, Habási, athani, Kandahári or adhéli.
Rupee	= Ropa	...	Kaldár, rupai, Kábuli.
Sovereign	...	...	Butki.

MATERIAL CONDITION OF THE PEOPLE.

The bulk of the population are poor, but there has been a steady improvement in their condition throughout the District, since the British occupation, consequent on a settled Government, the cessation of internal feuds and immunity from external raids. The extension of roads, which are safe and well protected, has also opened out better markets; and straw, fuel and fodder, which formerly had little or no value, now fetch good prices, more especially in places which are close to headquarter stations and military posts. There has been considerable extension of cultivation in almost all the tahsíls, and it is more noticeable in Músa Khél where the people are gradually giving up their nomadic habits and taking to agriculture. In pre-British days, the only lands which could be safely and profitably cultivated were those in the vicinity of villages and settlements, and within gunshot of the mud towers, but since the British occupation these conditions are entirely changed and cultivation is carried on in remote parts.

The more prosperous condition of the country is shown by the better material used for dress, both by men and women.

MATERIAL CONDITION OF THE PEOPLE.

Coarse country cloth and rough woollen coats (*kosae*) are now being replaced by cotton goods of finer quality, the women using red *sálu* and cheap prints called *mongia* and *iláicha*. The wealthier families use silk cloths and silver and gold ornaments. There has also been an enormous rise in *walwar* or bride-price. The value of land has increased considerably, more especially in the vicinity of Loralai, chiefly owing to the establishment of a settled government and the consequent general feeling of security; it has also been much influenced by the extension of communications and the rise in the price of produce.

The improvement in the general standard of living, coupled with the loss entailed by seasons of drought in those parts of the District where cultivation is largely dependent on the rainfall, has involved the cultivators in indebtedness to some extent.

FORESTS. Reserved forests.

The District possesses five reserved forests covering an area of 53 square miles. *Acacia modesta* and juniper (*Juniperus macropoda*) are the principal trees, which cover an area of 33 and 12 square miles respectively. The remaining 8 square miles are under grass reserves.

Acacia modesta reserves

The *Acacia modesta* tract is comprised in the Gadabar forest, which was constituted a reserve in January 1899. It has an area of 33 square miles, of which 25 square miles lie in the Duki and 8 in the Bori tahsíl. The *Acacia modesta* is gregarious in this locality, and in some parts of the reserve its growth is fairly dense. On the hilly portion of the reserve it is mixed with olive. The other trees met with are the pistachio and ash.

Juniper Reserves.

The juniper area consists of the Chautér (3 square miles) and Karbi Kach (3 square miles) forests, in the Sanjáwi tahsíl, which were reserved in November 1890, and the Súrghund (6 square miles) forest in the Bori tahsíl, reserved in June 1904.

Chautér forest is a block comprising both sides of the hill south of the Chautér village. The forest consists of the

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Juniperus macropoda, mixed with the underwood *zarga* (*Prunus eburnea*) and *mákhai* (*Caragana*), the other trees met with being the wild apricot and ash.

Karbi Kach is a narrow valley extending from Ziárat Tsari to Mandu-Kara, it has a watershed on each side, and has been demarcated with stone pillars. The Kach-Ziarat-Loralai road runs through the centre of the forest. There is a right of way from the Karbi Kach lands, up the south slope of the valley, to the Kholijgi pass.

The Súrghund forest, which was originally preserved as a grass *rakh*, contains *Juniperus macropoda* mixed with *Prunus eburnea* and *Caragana;* and lies in the western end of the Bori tahsíl. The Pishín-Déra Gházi Khán road passes through it. The people of the Ghurmi village are permitted to cut grass with sickles for the *boná fide* use of their own stock and not for sale, but they have no right to cut timber.

Grass reserves.

The Nargasi grass *rakh* has an area of 8 square miles and was reserved in June 1904. It lies to the north of the Chináli-Chinjan road. Pistachio trees and their allied species are found scattered here and there, throughout this area, more particularly along the ravines. The conditions made with the people of Dirgi Sargara, at the time of reservation, were that one of the two portions of this forest, which has many trees in it, should not be open at all, for grazing, nor should timber be cut from it, while the other portion, which has comparatively less trees, should be open only for grazing sheep and cattle, and not for camels and goats; but that during times of scarcity, the necessary permission should be given to the opening of the first portion.

The Gumbaz grass reserve in the Duki tahsíl lies along the Naréchi river; it consists of four plots with an area of 192 acres, and was reserved in April 1893. It contains tamarisk and poplar trees. It is in charge of the Cavalry detachment stationed at Gumbaz.

Forest areas specially protected.

The two forest tracts under special protection are the Kohár and Chotiáli, the question of whose reservation is

under consideration (1905). The former* is in the Bori tahsíl, has an area of 16 square miles and consists of *khanjak* and olive trees; Chotiáli lies along the Naréchi stream and the trees in it are chiefly tamarisk and poplar. FORESTS.

Reserved trees.

The following trees growing on waste lands at the disposal of Government have been declared reserved trees, the cutting and lopping of which is regulated by rules contained in the Agent to the Governer-General's notification No. 2271, dated the 27th February 1901:—

Scientific name.	English name.	Local name.
Juniperus excelsa ...	Juniper ...	Obusht.
Pistacia khanjak ...	Pistachio ...	Shrawan.
" mutica ...	" ...	
Fraxinus xanthoxyloides,	Ash ...	Shang.
Olea cuspidata ...	Olive ...	Showan.
Acacia modesta ...	Acacia ...	Palos, Pulai.
Zizyphus nummularia ...	...	Karkan.
" oxyphylla ...	...	Gurgula.
Tecoma undulata ...	Tecoma ...	Rohrai, Lahúra.
Prunus eburnea ...	Wild apricot	Zarga.
Populus Euphratica ...	Poplar ...	Spína, Padah, Bahn.
Tamarix articulata ...	Tamarisk ...	Ghaz, Lai, Jháu.
" Indica ...	" ...	Farásh.
Periploca aphylla ...	...	Barrar, Bata.
Prosopis spicigera ...	...	Kandi.
Salvadora ...	...	Pílu.
Capparis aphylla ...	...	Karil.

A brief description of the more important trees is given below:—

Important forest trees.

The *acacia modesta* is a moderate sized tree, found in all the tahsíls of the District except Sanjáwi. It grows readily in poor, sandy or rocky soils. The sapwood is large, white and perishable, but the heartwood, which is dark brown with black streaks, is extremely hard, furnishes a strong and durable timber, and is largely employed for

* Kohár was declared a reserved forest in August 1905.

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making agricultural implements and roofing houses. It yields, in small quantity, a useful gum which occurs in small round tears or angular fragments with a few vermiform pieces marked with a wavy transverse line. The leaves and flowers form an excellent food for cattle, sheep, goats and camels.

Juniper. *Juniperus macropoda* (P. *Obusht*, Br *apurs*).

The juniper grows in hilly country where the situation is not too exposed and where there is a certain amount of moisture in the soil. It is found on the hills near Chautér and Karbi Kach in the Sanjáwi tahsíl and on the Súrghund hills in the Bori tahsíl.

The sapwood is white, the heartwood red, often with a purplish tinge. It has the same agreeable odour as the wood from which pencils are made, is light and, though not strong, withstands the action of moisture to a remarkable degree. It is used for making water channels (*tarnáwas*), house-posts and beams. In the upper parts of the Sanjáwi tahsíl, the bark of the tree is largely used for roofing huts and temporary shelters known as *manhas*. The trees are extremely slow in growing and never attain a great height, few being over 60 or 70 feet. The fruit which is known as *palo* appears in spring, and is believed by the people to ripen in the third year. For food, the berries are boiled in a small quantity of water when they become like jelly and are blackish in colour. After extracting the kernels the jelly which is locally known as *dosha* is eaten, more especially in times of scarcity. It is also believed to be a cure for colds. The jelly is sometimes mixed with *ghí* and used for lining the skins (*zik*) in which *ghí* is stored as the resinous substance sticks to the skin and prevents percolation.

The green leaves of the juniper are steeped in water for four days and the water is then administered to sheep as a remedy for the liver complaint known as *zizhae*. Sheep suffering from cough are locked in a hut, in which a quantity of dry leaves is burnt slowly, the smoke being considered to give relief.

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Juniper berries are extensively used in Europe for scenting soap, but an experiment made by the Manager of the North-West Soap Company, Calcutta, showed that the value of the Baluchistán juniper berries as a perfume for soap was practically *nil*. Essential oil of juniper berries is an article of commerce in Europe, and its price quoted in English and Continental lists is about 7*s*. per lb. The oil is used medicinally and possesses carminative and diuretic properties. A distillate of the berries is also used for flavouring or modifying the flavour of whisky, brandy, etc. But no such use of the berries is made in Baluchistán.*

Pistachio. *Pistacia khanjak* (*P.* *Wanna* or *Shinae*).

The pistachio tree is found in parts of the Bori tahsíl. The growth is scattered and sparse and the tree is extremely slow growing and hence difficult to rear. It seldom grows more than 30 to 40 feet in height and is generally lower, with a thick trunk of 6 to 8 feet in girth, and a rounded crown. *Khanjak* wood is far superior to that of any other tree growing in the highlands, hence the desirability of its artificial propagation, a subject which will be dealt with later.

The natives recognise two varieties, one which gives fruit and is known as the *bághi* and the other which has a thicker foliage, does not bear fruit, and is called *ná-bághi*. A tree is believed to begin to bear fruit when 25 to 30 years old and is said to last a thousand years. The fruit is green at first, then yellowish, and when ripe about the middle of August, of a blackish colour. The average yield of a full grown tree is about 14 seers. The fruit when unripe suffers from the wind called by the Afgháns *barvo*, and also from hail and locusts. It is also affected by a disease known as *gorai*. The fruit is generally believed to be owned by small tribal groups.

The fruit (*shinae*) is eaten both fresh and dry. It is considered warm and stimulating but is constipating. The Kákars believe that in years when there is plenty of *shinae*

* A full account of *Juniperus macropoda* will be found in the *Dictionary of the Economic Products of India*, Vol. IV, p. 554.

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the fertility of their women increases. A powder is made from the dried fruit, mixed with wheat flour and made into a kind of porridge called *púsa* or *léti* which is much relished. Oil for lamps is also extracted from the fruit and this oil is also eaten and used as an unguent for the hair.

In the forest areas which have been reserved and in which soil has been formed by the restriction of grazing, an appreciable amount of natural reproduction has been noticed. Among the people of the country it is commonly believed that a seed does not germinate unless it has passed through the stomach of a *chikor* or the outer cuticle has been removed with the teeth. Experiments made by the Forest Department in Quetta in 1902 and 1904 indicated that the *khanjak* could be successfully reproduced from seed under favourable circumstances. These are—that the soil should be somewhat rich, that the seed should be sown before the spring season, i.e., about February, and that moisture should be available in the seed beds. The process of passing the seed through the stomach of a *chikor* was found to accelerate germination and indirectly it appears to help its growth. The time required for germination is from 30 to 50 days.*

ox trees.

Other trees of importance which have not been reserved are the box, myrtle and dwarf palm. A few box trees were seen in 1892 by Mr. Elliot, then Deputy Conservator of Forests in Baluchistán, on the summit of the range which separates the drainage flowing south-east through the Vihowa pass from that which flows north and west. This is the only place in Baluchistán where box has yet been discovered.

yrtle *nara)*.

These trees are found in the villages of Sanjáwi, Uras, Chaléz, Nasak, Giwári and Tor Wám, in the Sanjáwi tahsíl. Efforts were made to transplant the roots, but after reaching a certain height the saplings died. A few bushes were planted at Loralai and they are doing well. No instance is known of a transplanted tree bearing fruit. The tree is evergreen,

* Further information of this tree will be found in articles 847—57, pages 271—73 of the *Dictionary of Economic Products of India*, Vol. VI, Part I, under "*Pistacia Terebinthus.*"

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it flowers in June and the fruit appears in July. It is then green, but in August and September it becomes reddish and when it ripens in October, its colour is blackish. It is picked in November. The average yield of fruit per tree is about 1½ maunds in the season. It sells for an equal weight of wheat. The fruit has a mixed flavour, sweet and sour, and is used after meals to promote digestion. In size it is about equal to a grain of *makai* (maize).

Dwarf palm (*písh. mazar* or *dhora*).

The dwarf palm occurs in the Kingri, Drug, Rod and Toi-Sar circles of the Músa Khél tahsíl, in all the circles of Duki tahsíl, in stony land, and at the foot of hills. In Bárkhán it is met with in abundance in Leghári Bárkhán and also in other circles except Bagháo where it occurs in very small quantities. It is an evergreen plant. It flowers in the cold season and its fruit ripens in October. Many articles are made from its leaves, such as mats for roofs, floors and *chárpáis*, ropes for cattle, etc., fans, sandals, brooms and sacks. The dry leaves are used as fuel and poor people eat the root (*poché*) of the plant in times of scarcity. The fruit (*tákún*) is also eaten and the pith (*lalis*) of the plant is eaten half-baked. The articles manufactured from it in Bárkhán and Drug are sometimes exported to Déra Ismáíl Khán and Déra Gházi Khán Districts. In July 1898 it was suggested that the dwarf palm should be classed as a "reserved tree," but the proposal was negatived, as it was considered inadvisable to tax a tree, which supplied the poorer classes of the country with many of their most common domestic needs.

Minor Forest Products. Cumin.

This gregarious herb grows wild in Kru, Ghazhgighar and the hills in Sanjáwi and Bori. The herb becomes green in early spring and about the end of March the stem appears and is followed by white flowers. The seed or fruit ripens in June, when men, women and children repair to the hills and pull up the plants which, when dry, are winnowed with sticks to extract the seed. As a medicine, cumin seeds are considered aromatic, carminative and stimulant. They are also stomachic and astringent and useful in cases of diarrhœa and dysentery. The principal use of the seed is as a spice.

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The annual produce in a good year is about 800 maunds and the average selling price is Rs. 10 a maund.

A small quantity is consumed locally, and the rest is exported to Sind. The local Afgháns gather about 400 maunds of the seed, the balance being collected by the Kákars of Zhob who have no fees to pay for it. They take the seed with them to Zhob and sell it to the shopkeepers in the bazars of that District.

During 1899-1900 experiments were made in the cultivation of cumin, but almost all proved unsuccessful. In 1902 a second experiment was made in the Sanjáwi tahsíl garden, the watering, etc., being carefully supervised by the náib tahsíldár. In the early stages the crop looked exceedingly flourishing, but when the seed came to be gathered, it was found to have no taste or smell and had therefore no market value.

Forest management.

The Gadabar forest was under the control of the Political Agent up to 1898, when it was transferred to the Forest Department, the Extra Assistant Conservator, Forests, being placed in charge of all the forests in the District in April 1904. At the same time the Loralai range was established under a Forester, and the Karbi Kach and Chautér forests were transferred to it from the Ziárat range. The subordinate staff consists of one *munshi* on Rs. 13 and 8 guards, all local men, on Rs. 10 each.

A royalty on fuel and timber is levied in the Loralai bazar, the receipts from which have averaged during the five years ending with the 31st of March 1905 Rs. 1,996 per annum. Since the 1st of April 1904 these receipts have been credited to the Forest Department which pays for the establishment of the range.

Brief past history and possibilities of extending forest areas in future.

In May 1887 a piece of land was taken up for a grass *rakh* for the garrison of Loralai in the Raosin valley about 8 miles from Loralai; it was marked with boundary pillars in 1889, but was abandoned in 1897, being no longer required by the Military Department.

Early in the year 1897-8, with a view to checking overgrazing and the consequent falling off in the supply of grass, three blocks of land in the Bori tahsíl were closed against all grazing for a period of three years, the arrangement being agreed to by the people. The blocks closed were: one between Spéraràgha and Chinjan, the second between Chinjan and Chinâli, and the third at Domukhi near Chinjan. The total area of the three blocks was estimated to be 10,460 acres. The blocks were marked with pillars and three *chaukídárs* were entertained for their protection. In the following year a great deal of grass grew in these blocks, while the surrounding country was destitute of it, and the experiment thus proved to be a decided success. Of these three blocks the Domukhi has since been abandoned, but the remaining two have been declared State reserves under the names of Súrghund and Nargasi. FORESTS.

The other Government waste lands in the District, the question of whose reservation is under consideration (1905), are—Spíngwar* in Bori, and Tomágh,† Khumak and Ghairgi in Sanjáwi with a total approximate area of 38 square miles.

In the Músa Khél tahsíl are two large waste areas known as Atal Kach and Drug and a large waste near Rakhni in the Bárkhân tahsíl, all three being covered with *Acacia modesta*, a reserved tree. The question of the protection of the reserved trees is also under consideration (1905).

Arboriculture.

Since the formation of the civil and military station of Loralai, attention has been paid to the planting of roadside trees and there are now a number of mulberries, apricots, poplars, willows, figs, almonds, walnuts, apples, pomegranates and vines. In the headquarter stations of the other tahsíls a few trees have also been planted along the main roads, and

* Spingwar, the principal trees in which are *khanjak* and olive, was reserved in August 1905. The people of Kach Ahmakzai. Kanorábád and Drazand have permission to graze cattle and sheep under certain conditions.

† Tomágh (area 10,240 acres) was reserved in November 1906.

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small orchards started. In 1903-4 the following fruit trees were supplied to the District Officer from the nurseries at Quetta for planting :—

Apples of sorts	...	...	50
Pears ...	...	...	30
Apricots ...	...	...	90
Walnuts (*kághzi*)	...	...	20
Almonds („)	...	...	1,440
Peaches ...	...	...	100

MINES AND MINERALS.

Coal.

Coal is the principal mineral found in the District. Salt and saltpetre were formerly manufactured. None of the other mineral products are of importance.

Traces of coal were first discovered at Kachi Badhi and Kárwada in the Chamálang valley in 1874, but Mr. Ball of the Indian Geological Survey, who visited the locality, found that the seams did not contain a sufficient thickness of coal to be worked profitably. "The results," he wrote, "of my examination of the coal are briefly as follows :—

"The first section examined, in which coal seams occur, is in the Kachi Badhi hill. The thickest of these seams did not exceed 4½ inches, most of the others being only 2 inches or less. I counted about ten such seams, which are parted from one another by a thickness of from 5 to 25 feet of blue shales, associated with which is a very distinct fossil bed, which serves to mark the horizons to which the coal belongs.

"The dip of these rocks was 10° to west, but was a good deal disturbed close by. At several localities further to the south-west the same or very similar sections are exposed, the dip rising to from 25° to 30°. The next locality in which there is a good section is at the northern end of the Kharlak portion of the Kárwada range. Seven seams are here seen, the thickest of which does not exceed 6 inches. The last locality visited is the one where the appearance had given rise to the hope that coal in workable quantity would be found. The principal seam crops just inside a

small flanking range of the Kharlak hill. The thickness of this seam barely averages 9 inches, all of which, however, is excellent coal. The dip is 30°, rising in places to as much as 45°. Along the strike which runs with that of the hill, or about north-east-south-west, the seam was traced for upwards of a mile, and may very possibly extend much further. From this seam blocks of coal 9 inches thick, and a foot or more in each of the other dimensions, can be readily extracted. Such blocks of good coal, until the seam was examined and measured, were calculated to give, as indeed they did, a too favourable view of the value of the discovery.

"The section of the Kárwada hill, which rises almost 1,100 feet above the Chamálang, enabled me to fix the Geological horizon of the coal. This proved most useful subsequently when examining other sections, where, though the shales and fossil layers were present, there was a total absence of any carbonaceous deposit. * * * * * * * * *

"I now return to the coal and to the discussion of the economic value of the discovery. It is perfectly obvious that to work a seam of only nine inches, which is the thickest that has been discovered, however good the coal and however situated with regard to carriage, could not be done with profit. It is therefore useless to enlarge upon the prospects of working this seam, which is situated in the heart of the hills, 150 miles from the Indus.

"It remains for me, therefore, only to say what the prospect of the ultimate discovery of a seam or seams of workable thickness may be.

"The result of a very thorough search for coal throughout these hills, which has been made by the Baluchis under Captain Sandeman's order, is of material aid to me, in confirming the opinion which from other considerations I have been led to form.

"The sections at the coal localities above given do not, I believe, render the prospects of finding coal in large quantity in any degree probable, but rather the reverse. The fossils

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of marine animals, which occur both above and below the coal, indicate that the periods when the growth and deposition of vegetable matter were possible were of brief duration.

"Again, the fact that the same geological horizon in several other parts of the country yields no trace of coal indicates a limited area of deposit.

"Close to the main axis of the Sulaimán range a much greater thickness of the lower rocks is exposed, yet, so far as I can ascertain, only slight traces of coal have been found, though the country is better known, and is occupied by more civilised tribes than is the distant Chamálang valley.

"Were the geographical position of the Chamálang different from what it is, it might be considered worth while to prove by boring the lower rocks, but the chance of success is far too slender to justify any such expenditure as would necessarily be involved in the undertaking. The Baloch chiefs and their followers manifested the very greatest interest in the coal, and I feel confident that Captain Sandeman will be duly informed, should perchance a valuable seam be hereafter discovered. * * * * * *

"It is with regret, however, that I am obliged to state that I have seen nothing to justify a hope that a workable thickness will be discovered in any position of the area examined by me."

In spite of Mr. Ball's unfavourable prognostications several fine seams of good coal near Hanki, at the western end of the Chamálang valley, were brought to notice by Mr. Turner, Extra Assistant Commissioner, Duki, in January 1905. Two months later these seams were seen by the Coal-mine Overseer who reported that there were several thin seams both dull and bright, running north-east and south-west in the vicinity. The principal and most promising one had a thickness of about 2′ 4″ with a dip at an angle of 32° to 38° from the horizontal. The roof and floor were both, as usual, in soft shale. The seam which is traceable for six miles is situated in small ridges, but there is

no suitable place for driving adits at any considerable depth from the outcrop. The coal is of fair quality and the amount considerable.

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Mr Turner also brought two other indications of coal to notice, at Kam Takri and Mushkan, regarding which the Coal-mine Overseer reported that there were two seams at Kam Takri, one above the other about 4″ in thickness, with a clay parting of 15″ and dipping at an angle from the horizontal of from 28° to 32°, the roof and floor being both of sandstone. At Mushkan the seams are thin, from 1″ to 1½″, dipping at an angle of 38° from the horizontal.

At all the places where coal has been found, gypsum is to be seen in small quantities. It is found, however, in large slabs of about 2′ × 1′ at the western end of the Hanki seam.

In 1892 Mr. Oldham of the Geological Survey of India found coal in several places near Duki, but the thickest seam then seen measured only 14 inches and it was not considered to be of importance, owing to its distance from the centre of demand. A promising outcrop of coal was, however, seen in the hills about a mile and half from Duki station in November 1903. The quality of the coal was pronounced to be better than that of the Sor range near Quetta, and as the seam, which is about 2 feet thick, appeared to be in a workable position, two shafts of 150 feet deep have been sunk and about 185 tons of coal extracted.

This coal which has been used in Loralai during the past winter has quite come up to expectations, and the Supply and Transport Department have entered into a contract to take some 300 tons for the troops next winter (1905-6).

It seems probable that the greater part of the fuel required for domestic purposes and brick-burning in Loralai Station will, in future, be supplied by this mine.

Salt.

Previous to 1901 when orders were issued for the levy of duty on salt which was manufactured locally, the Tarín

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zamindárs of the Lasiáni village in the Thal circle of the Duki tahsíl, after finishing the summer agricultural operations, sometimes manufactured earth salt. The operations are, however, no longer carried on. For purpose of manufacture small pits were dug near wells, which had been previously excavated, and saline earth was lixiviated in the pits for a night. Next morning the salt water was poured into some 30 or 40 earthen vessels (*katao*), placed over a long trench (*chari*) and boiled, after which the residue was taken out of the pans, spread on mats and dried in the sun. A party of six or seven men could manufacture about 5 maunds of salt in four days. The salt sold at about Rs. 2 a maund.

Saltpetre.

Before the advent of the British, saltpetre was manufactured in the Bori and Duki tahsíls for local use, but the manufacture has now (1904) practically ceased. Manufacture took place in summer and the system followed was for the earth containing the nitrates, which was generally taken from old village sites, to be put in a caldron and boiled. This process was repeated four or five times, the decoction being strained through a cloth each time, and the crystals being subsequently dried. Powder was made from it by mixing 5½ parts of saltpetre with one part each of sulphur and willow charcoal and powdering the whole fine in a wooden mortar with a stone pestle. Dirgi Kudézai was one of the principal places in Bori, at which the manufacture took place, the nitrate-bearing earth being obtained from the tumulus (*shar ghalae*) lying near the village.

In the Duki tahsíl a different method was followed; from 1½ to 2 seers of nitrate-bearing earth being placed above a rough filter made of four poles with a concave grass top. Lixiviation was effected by pouring water on the saline earth and allowing it to filter through into a vessel placed below the grass roof. The liquid was then boiled until it assumed a thick appearance after which it was dried in an open vessel.

A saponine drab-coloured earth, somewhat like fuller's-earth, occurs in the hills near Lákhi Bhar in the Leghári Bárkhán circle, near Allahyár Gárnáni's village in the Isiáni circle, near Galla Jahánáni in the Bagháo circle of the Bárkhán tahsíl, and is used by the people as a substitute for soap. Another kind of earth known as *káwazha*, which is used locally for dyeing clothes, is found near the *tangi* about 2½ miles from Sanjáwi.

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Miscellaneous products, *Multáni matti*, limestone, etc.

Good lime can be manufactured from local stone in all parts of the District, but it is only systematically burnt at Loralai. Building stone is everywhere obtainable, especially from the Siázgi hill in the Bori tahsíl and in many places in the Bárkhán tahsíl. *Múmiái* or *sildjít*, locally known as *maulái*, is found in the Jhalár hills of the Duki tahsíl, in Dhol, a spur of the Wadanghar hill in the Sanjáwi tahsíl and in hills in Bori. It occurs in small brownish-white lumps with a semi-crystalline structure internally, but its value as a medicinal drug is lessened by the admixture of salt in it. A small quantity, which was analysed in Calcutta, was found to consist almost entirely of urea. It is said to be invigorating and especially efficacious for bruises. It exudes from the rocks in the summer, and is collected before the rain occurs, but the annual outturn is estimated only at about 2 to 3 chittacks.

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In Bárkhán woollen weaving and leather work are of considerable local repute. Such of the crafts as are known to the people are described below:—

Embroidery.

Embroidery is common among the women in all parts of the District, but the art does not pretend to have reached the same stage of perfection as in other parts of Baluchistán, especially among the Bráhui and Baloch women. The work is done for private use, and embroideries seldom find their way into the open market. They are of several varieties, but unfortunately the products have been much damaged by the introduction of aniline dyed silks. Before the British occupation, embroidery was generally done in

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cotton, but now silks are largely used for the purpose. The work is done on the sleeves, collars, backs, shoulders and pockets of women's and children's shirts. Men's shirts are also sometimes embroidered, as well as the women's sheets, especially the head portion, and also handkerchiefs, caps and antimony pouches. Several designs are known. In Duki they include *gulán* which is the best, and represents a flower; *chárposh*; *khajúr* or a date tree, and *sukrai*. In Loralái the best known is *chakan* which is worked on sleeves, front pieces of shirts, and on *másae* or *páicha*, gaiters which are worn by Afghán women both married and unmarried. In Sanjáwi the designs in common use are *nokán*, *karak*, *kumi*, *khajúr*, and *buhári* worked on shirt fronts and *chakan*, *sargai karzah* and *taki* worked on sleeves. The designs known to the Jáfars of the Músa Khél are *chápan*, *búti* and *badi*. In Bárkhán the only women's dress, which is embroidered, is the *choli* or sleeveless shirt which is of three kinds, viz., *chali chola*, *badha*, and *gagha* or *chhurya*. The first two are made for the use of the married women and the last for unmarried girls. In this tahsíl men's shirts are embroidered in designs called *láwan táin chitrya*, *choli chitri*, *turi wála* and *sáda*, and are sometimes ornamented with pieces of glass and known as *shíshewála*.

Woollen weaving.

The following interesting note* written by Mr. Lockwood Kipling on some of the special Baloch industries of the Déraját hills applies equally to the woollen weaving industry in Bárkhán :—" In the border hills in this District there is an interesting domestic industry of woollen weaving, the products of which resemble the Arab or Semitic type of woven fabrics more than any other work found in India. The coarse and every-day forms of this pastoral craft are rough goat's hair ropes, the rude cloths on which grain is winnowed and cleaned, corn sacks, camel bags and the like, which are used throughout this District and in the Déraját Division generally.

* *Gazetteer of the Déra Gházi Khán District* (1893—97), page 124. Lahore, 1898.

"More highly finished forms are camel trappings, saddle bags, *shatranjis* or rugs, and similar articles woven by Baloch women in a somewhat harsh worsted-like yarn, dyed in a few sober colours. The patterns are as simple as the material, but they are always good, and there is a quality of tone and colour in the stuff which more costly fabrics seldom possess.

"In addition to the woven pattern, saddle bags are ornamented with tassels in which white *cowries* are strung, and with rosettes skilfully and ingeniously worked in floss silk of different colours, with *ghogis* (small oblong shells like seeds) sewn on the borders. The rugs have great wearing qualities, as warp and weft are both in hard wool; but being often crookedly woven they do not always lie flat. * *

* * * * * * * * *

There are no signs that the Baloch weaving will grow to anything more than it is at present, a household occupation for merely local use. The work is, however, interesting as an example of the instinctive 'rightness' and propriety of design and colour which seem to be invariable attributes of pastoral industries."

The articles are manufactured by a class of professional weavers known as *channál*. The wool is cleaned, spun, and, if necessary, dyed by the owners and then a *channál* is called in who is given his food, tobacco or snuff, and hair oil during the period of his employment and is paid wages in cash by measurement. Sheep's wool is chiefly used. The price of the articles varies with the size and design. Of carpets the *gilm* sells from Rs. 10 to Rs. 90, *falási* from Rs. 3 to Rs. 25, and *kharari* from Rs. 7 to Rs. 12; *khurjíns* (saddle bags) are valued at Rs. 3 to Rs. 25, nose bags (*tobra*) As. 8 to Rs. 3, *ga dal* which is made by sewing the *falási* and a felt together fetches Rs. 8 to Rs. 12, and *trát* made of goat hair and costing Rs. 2 to Rs. 2-8. Other articles include the *chhori* which is made of wool and is used in the kitchen, it costs R. 1-8 to Rs. 3; and the following all made

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of goat and camel hair: *khai* Rs. 3 to Rs. 6, *ranga* R. 1 to Rs. 2, *phanji* R. 1 to R. 1-4; all of these are corn sacks; and the *pachal* and *ghunj* used for carrying *bhúsa* and costing Rs. 3 to Rs. 4 and Rs. 5 to Rs. 8 respectively.

The articles manufactured in the remaining four tahsíls by the Afghán weavers called *péshawars* are comparatively few, and are of an inferior type, being meant only for domestic use. They include *kormah* and *shágai* which are carpets; *khurjins; pokh ghíndae* and *darwar ghíndae* (corn sacks); *uzhdun* (a bag for keeping clothes); *marai tubrai* (a case for keeping bread); salt case (*málga panzai*); *sarai* a blanket; nose bags; and goat hair blanketing for *kizhdis* or tents. The weaving industry of Bárkhán was once much admired, but the use of cheap aniline dyes has damaged the trade and the products are now inferior in quality. They are sold locally and are exported to the Déraját. There are (1905) about 48 families of weavers in Bárkhán, 40 in Duki, 11 in Músa Khél and 10 in Bori.

Felts.

Felts (*namda* or *karásta*) are made of sheep's wool by a simple process. The work is done by the women. The wool is beaten with sticks, cleaned, and made into parcels of about 2 seers each. The cleaned wool is then wrapped round a stick and is called *waranga* or *parosa*. A thin *darri* of the required size is spread on the ground, and small pieces of wool are laid over the whole of its surface, after which a second layer is added. If a variegated *namda* is to be made, coloured wool is used. Warm water is sprinkled over the layers of wool thus prepared, and the *darri* is then carefully and securely rolled up, after which it is rubbed and pommelled with vigour. As the wool begins to felt, more warm water is added, and after felting the *namda* is taken out and placed in the sun to dry. This process is continued for three days, more wool being added each time, until the felc is ready for use. Its compactness depends on the rubbing it receives. The felts are almost all made for home use and there is no trade in them in the District.

The price of a *namda* varies from R. 1 to Rs. 6. The women of the Ghilzai nomads, who periodically visit the District, make a superior kind of *namda* which is sometimes offered for sale. These are generally well felted and are occasionally ornamented. Long coats (*kosae*) and short coats (*grátai*) are made out of felt and are generally worn by the Patháns in the highlands during the winter.

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Copper work.

Copper utensils in ordinary domestic use were imported from the Déraját prior to the British advent. In Loralai there is a Kandahári *misgar* (coppersmith) who makes utensils for the local population. Indian made utensils are imported into Loralai by rail viâ Harnai and are sold to the inhabitants of the neighbouring tahsíls. Copper is imported from Sind. The vessels which are most in demand are *gadwa* costing Rs. 2 to Rs. 4 and *badnae* which cost R. 1-4-0 to Rs. 2.

Goldsmiths.

Goldsmiths, who make the common ornaments used by the indigenous population, are to be found in Duki, Loralai bazar, Mékhtar and large villages in Bárkhán.

Leather work.

Leather work is done in Bárkhán in the villages of Háji Kot, Chúhar Kot, Sheikh Ghulám Haidar, Kachhi, Jahándún and Jhalli in Leghári Bárkhán. It includes articles of horse gear such as headstalls, *nukta*, *sínaband* (breast strap), and *thara* (saddle pad), sword belts (*talwárband*), *kamarband*, shield covers, embroidered shoes, and sandals (*chhabba*) which are also made in the villages of Duki, Saádat Shahr and Chotiáli in the Duki tahsíl. Plain *chhabbas* are made from raw skins by the people themselves for their own use. The prices of the various articles made of leather are as follows: sandals R. 1 to Rs. 4; sword belts Rs. 5 to Rs. 15; shield covers Rs. 2 to Rs. 4; *kamarband* Rs. 3 to Rs. 4; *nukta* R. 1 to Rs. 3; *sínaband* R. 1 to Rs. 5; and *thara* Rs. 2-4-0 to Rs. 3-4-0.

Dyeing.

The people of Bárkhán get their clothes dyed at Déra Gházi Khán, but in Chúhar Kot there is a *bania* who does this work. Wool and woollen yarn are generally dyed for

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the ornamentation of felts, carpets, etc. Dyes of European manufacture are now commonly used. They include red (magenta and scarlet R. R. R.); yellow or *khatta*; green (*tútia*); and fine nut green (*gúhra sabz*); scarlet, manufactured in Germany; and new yellow (*motia*) and blue, made in Switzerland. The indigenous dyes, which have now been practically supplanted, were obtained from madder and *lác* for the red dye, from *gul-i-késu* (*Butea frondosa*) and *rangrát* for the yellow dye; blue from a mixture of indigo, *réwand chíni*, madder, *khár*, *méthrai*, turmeric and *kachúr*; green from the leaves of the *rága* and *páh*; and black from *kat*, and from the leaves of the *jon*.

Dwarf palm.

A reference to the dwarf palm will be found in the section on **Forests**. Articles made from this plant, such as sandals, ropes, mats, baskets, sieves, bullock sacks, fans, brooms and sacks for storing grain enter largely into the domestic economy of the people in Bárkhán, Músa Khél and Duki. In Bárkhán a small quantity is sold to the local *tumandárs* while the Jáfars of Músa Khél sell them to the Hindu shop-keepers of Drug who export them to Sanghar and Vihowa in the Déraját.

Pottery.

Rough domestic utensils of primitive design are made by the women. Earthen utensils made in the Mékhtar village of the Bori tahsíl are exported for sale to other parts of the District as well as to the Kibzais of Fort Sandeman. The principal articles are—cooking pots, *katav*; milking bowl, *lwaghae*; *kúza*, a bowl with a spout; drinking bowls, *sharmae*; plates, *sangae*; and *konda*, a pot for keeping tobacco. These pots are generally bartered for grain, a measure full of wheat being the ordinary price. A big *katav* costs about R. 1. The earth required for the purpose is obtained from the Shákkhi and Laman hills near Mékhtar.

Khár.

In the Bárkhán, Músa Khél and Duki tahsíls, crude potash is manufactured from the bushes called *khár búti* or *láni* and *zahrbútae* by the women of the country, chiefly for local use. The Kharots and Násars who visit the Duki tahsíl

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in winter also make *khár* and export it to Déra Ghâzi Khân. *Khár* obtained from the *zahrbútae* is of inferior quality. The plants are cut in October and November, dried, and then put in a hole in the ground and burnt. When the fire has been lit, it is kept gradually supplied with green bushes, and at the same time care is taken not to allow the flames to break out. The heat causes the sap to exude from the bushes into the pit, after which the liquid is allowed to cool, and forms into carbonate of soda. The hard mass is drawn out by means of a stick which is inserted in the ashes before covering them with earth. The manufacture is inconsiderable, the quantity being estimated in a good rainy year, at about 400 maunds in Bárkhán and about 250 maunds in Músa Khél. In Bori, *khár* is occasionally manufactured from the *zahrbútae*. The Duki *khár* sells in Loralai and Bárkhán at Rs. 2 to Rs. 2-2-0 per maund, while that made in the Drug circle of Músa Khél fetches R. 1-4-0 to Rs. 2 per maund in Vihowa.

TRADE AND COMMERCE. Trade between Khurásán and India.

Formerly a considerable transit trade between India and Khurásán used to traverse the Loralai and Déra Ghâzi Khán Districts by the Cháchar and Sakhi Sarwar passes. The Mangrota or Sanghar pass was also used, but never to a very great extent. The easiest pass was the Cháchar, by which route Harrand in the Déra Ghâzi Khán District was 22 marches from Kandahár. By this pass fruits and woollen goods used to come from Kábul in exchange for sugar and cotton cloth. In 1844, however, the Baloch commenced a system of plundering along this route, which after that year was practically deserted. In former days the Baloch used to make a good profit by escorting caravans.

After the Bárkhán valley was occupied by the British, the passes were opened for trade, which had developed considerably by that time, and posts were established for its registration. These posts were originally four in number. The trade by the Sanghar, Mahoi, and Kanwan passes was registered at Mangrota, that viâ the Kharr pass at Sakhi

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Sarwar, that by the Cháchar pass at Harrand, while the traffic with the Marri-Bugti country viâ the Siaháf was recorded at Rojhán. In 1895-6 the recorded value of the trade through these passes was—imports Rs. 2,03,717, exports Rs. 3,85,750 the largest amount (imports Rs. 75,105, exports Rs. 2,45,197) having been recorded at Sakhi Sarwar.* These posts were abolished in 1896 owing to the trade being considered as internal, and a registration post was established in their stead at Kharr 9 miles from Rakhni.

During 1902-3 the value of the imports through this post amounted to Rs. 31,848 and included grains Rs. 209, tobacco Rs. 400, *ghí* Rs. 5,202, *pudína* Rs. 3,178, raisins Rs. 15,815, wool Rs. 6,476 and miscellaneous articles Rs. 568. The exports amounted to Rs. 28,542 and comprised piece-goods, Indian, Rs. 7,155, piece-goods, European, Rs. 9,416, sugar Rs. 1,909, earthenware Rs. 262, rice Rs. 3,832, leather Rs. 5,760, and copper Rs. 208.

The Leghári chief used to levy transit duties at the rates given in the margin, and although, as far back as 1852, these duties were abolished, and a compensation allowance sanctioned, still owing to some misapprehension, the duties did not cease until July 1903.

	As.		
Cloth ...	12	per	camel load.
Tobacco & sugar	8	,,	camel ,,
Tobacco & sugar	4	,,	bullock ,,
Any goods ...	2	,,	donkey ,,
Wool ...	8	,,	camel ,,
Wool ...	4	,,	bullock ,,
Wheat ...	4	,,	camel ,,

The Khétráns also used to levy a duty of R. 1 per camel, 8 annas per bullock and 4 annas per donkey load, but these were abolished soon after the valley came under British control in 1887, when a compensation allowance was granted to the Mazaráni family.

Trade by Harnai.

Prior to the British occupation, owing to freedom from taxation, the safety enjoyed by traders, the facilities for feeding beasts on the Harnai route, and the improper exactions of the Khán of Kalát's officials in the Bolán, trade

* *Déra Gházi Khán District Gazetteer* (1893-97), pages 124-26.

had partially deserted the latter for the former. In 1883, however, the Bolán and the Quetta District were taken over from the Khán, and compensation for the loss of transit dues in the Bolán was sanctioned. In September 1883 the Government decided to levy certain duties both on the Bolán and the Harnai routes, and a small establishment was entertained. After a six months' trial it was found that Rs. 38,431 were realised, but it was considered advisable to free the trade from taxation, and the tolls were finally abolished on the 15th of May 1884, the total amount realised from the 1st of October 1883 to that date being Rs. 51,436. During this period merchandise to the value of Rs. 1,71,047 passed by the Harnai route.

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Trade between Sibi and Thal was also subject to tolls levied by the Marri chief at Gamboli at the following rates: camel R. 1-8-0, pony R. 1, bullock R. 0-12-0 and donkey R. 0-6-0.

Trade with Sind and other Districts.

The trade between Sind and the Punjab, and the Duki, Sanjáwi and Bárkhán tahsíls passes through the railway stations at Spíntangi and Harnai. The total imports at these stations in 1905 amounted to 112,947 maunds and the exports to 36,657 maunds.

Trade of the District.

No reliable statistics are available as to the trade of the District itself. But local enquiries show that the exports generally comprise wool, sheep, goats and in years of good rainfall some grain. The imports are chiefly piece-goods, European and Indian, sugar, molasses and pulses. The table on the next page shows the rough estimates prepared in 1906 by the tahsíldárs for the preceding 12 months.

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Articles.	Músa Khél tahsíl.	Bár-khán tahsíl.	Duki tahsíl.	Sanjáwi tahsíl.	Mékhtar village.	Loralai town.
Exports—	Maunds.	Maunds	Maunds.	Maunds.	Maunds.	Maunds.
Wool ...	700	500	1,500	500	700	1,000
Wheat ...	...	10,000	16,000	...	...	...
Juári ...	...	3,000	5,000	...	...	...
Mung ...	...	500	...	...	...	...
Barley ..	...	...	4,000	...	...	...
Apricot stones	...	...	...	1,000	...	...
Tobacco ...	...	...	...	800	...	...
Ghí ...	...	...	...	300	...	...
Cumin seed ...	...	...	...	800	...	100
Almond stones...	...	...	...	40	...	...
Pomegranates ...	...	...	...	...	...	100
Total ...	700	14,000	26,500	3,440	700	1,200
Imports—	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Piece-goods, Indian	15,000	16,000	8,000	...	35,000	1,00,000
,, European	5,000					
Molasses ...	1,000	750	...	...	400	5,000
Sugar ...	500	1,200	...	...	360	20,000
Pulses ...	100	...	...	...	...	4,000
Rice ...	200	250	...	...	...	...
Tobacco ...	200	1,200	3,500	8,000	240	...
Salt ...	1,500	300	...	...	220	...
Ghí ...	1,200	1,200	...	...	...	15,000
Oils ...	1,200	405	...	...	425	8,000
Grains ...	10,000	125	...	...	400	54,000
Other articles ...	2,500	525	...	...	2,900	8,000
Total ...	38,400	21,955	11,500	8,000	39,945	2,14,000

TRADE AND COMMERCE.

Classes engaged in trade.

Trade is generally in the hands of either local or Sindi *banias*, who maintain shops in the large villages. Some of the Shádozais and Taríns of Thal carry on wholesale trade in cloth and shoes. The Ghilzai Powindahs are the chief exporters of wool, but Bakhshu and Sádhu, Hindus of the Duki tahsíl, also export a considerable amount of wool and grain. In former years the Músa Khéls were in the habit of resorting to Multán where they purchased leather, cloths and other necessaries in large quantities; they also visited Chaodán, Déra Fatéh Khán and Geráng, but nowadays the trade of Músa Khél is in the hands of the Drug and Vihowa shopkeepers, and a few Zamarai Afgháns. The carrying trade is in the hands of the Ghilzai Powindahs, but in the Bárkhán tahsíl, the *mujáwars* of Sakhi Sarwar and the Mazáris of Rojhán are also employed. The centres of trade are Loralai town and Mékhtar in Bori; Drug and Músa Khél bazar in Músa Khél; Duki, Nimki, Shéra-Ismáíl Shahr and Hazár Shahr in the Duki and Háji Kot, Chúhar Kot, and Náhar Kot in the Bárkhán táhsil. Loralai and Mékhtar are the only places where octroi is levied on imports.

The Hindu shop-keepers with their *mukhis* or headmen have *pancháyats* at Loralai, Mékhtar, Duki, Háji Kot, and Chúhar Kot. These *pancháyats* levy certain fees on exports and imports, and the funds thus raised are expended in maintaining places of worship and in charities. The Háji Kot and Chúhar Kot *pancháyats* also employ *chaukídárs* as night watchmen, and defray the cost from their funds. The rates of these fees vary; in Loralai the charge is annas 2-6, and in Mékhtar anna 1-3 on every rupee paid as octroi, at Duki annas 4 per cent on the value of imports, and exports and in other places from 3 pies per maund on grain to annas 7 per camel load on cloth. The Háji Kot and Chúhar Kot *pancháyats* also get Rs. 13 on marriage, R. 1-4-0 on the birth of a male child and annas 10 when a Hindu lad is invested with the sacred thread.

MEANS OF COMMUNICATION. Railway.

The Railway stations in the western part of the District are the Harnai and Spíntangi stations on the Sind-Pishín section of the North-Western Railway, the former being 38 miles from Sanjáwi and 55¼ miles from Loralai, and the latter 55½ miles from Duki by the Sémbar pass. Bárkhán is 107 miles from Ghâzi Ghât station on the Sind-Ságar branch of the North-Western Railway, by the road viâ Sakhi Sarwar and Kharr, and Músa Khél is about 60 miles from Leiah on the same line.

Roads.

Roads have been made from time to time with the object of opening up the country, connecting District and Tahsíl headquarters and important military posts. Table X, Volume B. contains details of the principal routes in the District. A list of dák bungalows and rest houses is given in table XI, Volume B.

Pishín-Déra Ghâzi Khán road.

The question of opening up the trade route through Thal Chotíali was under consideration for some time, and in 1885 Colonel Sandford, Deputy Quartermaster-General, was deputed to examine the country and report as to the best line for a road from Déra Ghâzi Khán to Pishín. He reported in favour of the line viâ Fort Munro, Rakhni, Rarkan, Chamálang, Anambár, Bori, Chinjan, Spérarágha and Khánozai, and the proposed route was approved, with the modification that the road was carried from Rarkan to Bori through Kingri and Mékhtar instead of through Chamálang and Anambár. The work was begun in 1886, and completed in 1888, at a total cost of Rs. 7,07,689, the total length in Baluchistán being 228½ miles of which 175 miles, from Tsari Momanrgai to Rakhni lie in this District. The natural surface of the road being of a shaly material, little metaling was done. All streams were crossed by causeways, laid on the river bed, except in the case of narrow cuts, where culverts were cheaper and preferable. "The completion of the line of communication through a country which a few years since was a *terra incognita*, in friendly accord with the twelve warlike tribes, with 29,000 fighting men, through

MEANS OF COMMUNICATION.

whose land it passes is a remarkable achievement, and an event of importance, not only to trade and civilisation, but as furnishing an alternative route from India to our new territories in the event of the road by Shikárpur, Jacobábád and Sibi being closed by inundation from the Indus."* The road is maintained from military funds and the average charges of maintenance per mile in 1905-6 were Rs. 31.

Harnai-Fort Sandeman road.

The road from Harnai Railway station in the Zawar valley, to Loralai through the Mehráb Tangi, Dilkúna defile, and Smállan valley, was made immediately after the occupation of the Bori valley in 1887, and was subsequently improved, metalled and made fit for wheeled traffic. Its cost was Rs. 10,600 per mile and the maintenance charges in 1904-5 amounted to Rs. 505 per mile. It is treated as a military road. It was subsequently extended to Fort Sandeman, 167 miles, of which the first 22 miles (Harnai to the Ushghára Kotal) lie in the Sibi District and 76 miles (Ushghára to Zara) are within this District.

Other roads.

The other roads are—(1) the Smállan-Ziárat road, 40½ miles; (2) the Sanjáwi-Duki-Gumbaz-Kohlu-Bárkhán-Rakhni road, 134 miles; (3) the Fort Sandeman-Músa Khél-Kingri road, 95 miles; (4) the Spíntangi-Duki road, 55½ miles; (5) the Gumbaz-Báladháka-Rakhni road, 84 miles; (6) Músa Khél to Déra Ismáil Khán viâ Drug; (7) Loralai to Kila Saifulla viâ the Dholu pass; (8) Loralai to Duki by the Raosin valley or Ghallo Tangi, 20¼ miles; (9) Mékhtar to Murgha Kibzai, 20 miles, and thence to Músa Khél, 30 miles.

The following table shows the road mileage on March 31, 1905:—

Description.	Total.	Maintained from Military funds.	Maintained from Provincial revenues.
Cart roads, bridged and metalled.	3·88	3·88	...
Cart roads, partially bridged and metalled.	285·00	209·25	75·75
Tracks and paths ...	737·	...	737·
Total ...	1025·88	213·13	812·75

* *Life of Sir Robert Sandeman*, by T. H. Thornton, C.S.I., D.C.L., (1895), page 192.

MEANS OF COMMUNICATION. Transport.

Donkeys and plough bullocks are the principal means of local transport, the number of the former being 1,935 belonging to the permanent inhabitants, and 1,411 to nomads. There are about 1,000 camels belonging to the settled inhabitants in the Bárkhán and Músa Khél tahsíls, but these are not used for transport purposes, except by the Isots of Músa Khél.

The exports and imports of the Bárkhán tahsíl are carried by the camels of the *mujáwars* of the Sakhi Sarwar shrine, Mazáris of Rojhán, Bráhuis of Sibi, Kaisráni-Baloch of Déra Gházi Khán, and Isots in the Músa Khél tahsíl; and Ghilzai Powindahs and Bráhuis in the Duki, Bárkhán, Sanjáwi and Bori tahsíls.

The rates vary according to local conditions of supply and demand and are usually fixed by private arrangement, between traders and carriers, but the following may be taken as fairly representative :—

	From.	To.	Rate per maund.	
(1)	Harnai ...	Loralai or Duki.	As. 7 to as. 12.	
(2)	Spíntangi ...	Duki viâ Thal ...	As. 8 to as. 12.	
(3)	Bárkhán ...	Ghází Ghát viâ Déra Ghází Khán.	R. 1-0.	
(4)	Bárkhán ...	Mithan Kot ...	As. 10 to As. 12.	
			In summer.	*In winter.*
			Per camel.	
(5)	Vihowa ...	Músá Khél	Rs 4 to Rs 5.	Rs. 2-8 to Rs. 3.
(6)	" ...	Drug ...	Rs. 2-8	Rs. 1-8
(7)	" ...	Mékhtar...	Rs. 6 to Rs. 7.	Rs. 3 to Rs. 4.
(8)	" ...	Loralai ...	Rs. 10 to Rs. 15.	Rs. 7 to Rs. 9.

Single horse tongas or tumtums ply regularly on the Harnai-Loralai road, and are subject to rules issued by the Agent to the Governor-General, in October 1902, under section 20A of the Stage Carriages Act (XVI of 1861). The ordinary rate of hire for a single journey from Loralai to Harnai is Rs. 14; Loralai to Fort Sandeman Rs. 36; Harnai to Sanjáwi Rs. 10; and Harnai to Duki Rs. 14; two rupees per diem to be paid for a halt at any place. The price for one seat in the mail tumtum from Harnai to Loralai, from Sanjáwi to Harnai and from Loralai to Sanjáwi is Rs. 4-8, Rs. 3 and Rs. 2 respectively.

MEANS OF COMMUNICATION.

Camel contracts.

The question of camel transport has always presented much difficulty and conferences and committees were held in 1884, 1887, 1890 and 1891 to consider the subject. The conference which assembled in September 1891, under the presidency of Mr. (now Sir Hugh) Barnes, then Revenue Commissioner in Baluchistán, drew up an elaborate set of rules and a draft agreement, the terms of which were approved by the Government of India. This conference recommended the division of the whole Baluchistán Agency into two independent circles, the contract in each circle being held by a separate contractor. The second circle included the Thal Chotiáli and Zhob Districts, for which a contract was concluded for a period of three years ending with March 31, 1894. On the termination of this contract, a committee was again assembled (in November 1894) under the presidency of Major MacIvor when it was decided that it was impracticable to maintain a uniform schedule of rates for the whole Agency, and that as regards the Kalát and Quetta-Pishín districts the supply of camel carriage and the rates to be paid might be left to the ordinary laws of supply and demand. It was, however, considered desirable to retain the existing arrangements in Zhob and Thal Chotiáli. Since the formation of the Loralai District in 1903, a separate contract has been sold annually for the supply of camels, for the requirements of District Officers and others. The Military Works Services and the Supply and Transport Departments have made their own arrangements. The rates of hire are 9 annas per camel per day, for one or two camels engaged for 15 days or less. If 4 or more camels are required the rate is 8 annas per camel per day or Rs. 15 per camel per month. The rates for carriage of stores vary from 2 pies to 4½ pies per maund per mile.

MEANS OF COMMUNICATION. Post and Telegraph offices.

The following table shows the Post offices in the District, with their functions; such of them as are combined Telegraph offices are marked C.

Name of Post office.	Head, Sub or branch office.	M Can issue and pay money orders.	S Can transact saving bank business.	C Combined Post and Telegraph office.	D Departmental office.
Loralai	Sub ...	M	S	C	D
Mékhtar	Branch ...	M	...	C	D
Sanjáwi	" ..	M	S	C	D
Duki	Sub ...	M	S	C	D
Gumbaz	Branch ...	M	S	C	D
Chéra Shahr ...	" ...	...	...	...	...
Bárkhán	" ...	M	S	C	D
Músa Khél ...	" ...	M	S	C	D
Khán Muhammad Kot	" ...	M	S	*	...
Kingri	" ...	M	...	C	D

The mails and parcels from Harnai to Loralai are carried daily by a tonga service, the contract for which is renewed periodically under the orders of the Political Agent, Loralai. The mails between Bárkhán and Rakhni, Fort Munro and Loralai, Loralai and Fort Sandeman, Kingri and Músa Khél, Mékhtar and Murgha Kibzai, Sanjáwi and Kohlu, are carried by local levies. The services between Bárkhán, Rakhni and Fort Munro; Kingri and Músa Khél; Loralai and Fort Sandeman; and Sanjáwi and Duki are daily, while those between Duki and Kohlu, and Mékhtar and Murgha Kibzai are carried on alternate days. Parcels between Loralai and Fort Sandeman are carried by camels twelve times a month each way under a contract system which is renewed annually by the Political Agent, Loralai.

* Receives telegrams for transmission to the nearest Telegraph office.

MEANS OF COMMUNICATION.

The total number of postal levies employed in the District on March 31, 1906, was 63, comprising 1 Inspector, 2 Jamadárs, 3 Daffadárs, 56 sowars and 1 *munshi*, at a monthly cost of Rs. 1,697-8-0. The total expenditure during 1905-6 amounted to Rs. 20,183.

FAMINE.

Scarcity and its causes.

Owing to a considerable amount of irrigation in most of the tahsíls and good means of communication throughout, the District is fairly well protected, and actual famine has not been known since the British occupation. The sources of irrigation are, however, much affected by rain and snowfall, and in years of light rainfall their irrigating capacity is largely reduced. A considerable area of land is, moreover, entirely dependent on the autumn and winter rains, whilst flock-owners look to them for their supply of fodder. Thus periods of distress and scarcity are not infrequent.

As a portion of the District only has been surveyed, exact figures are not available, but from a rough estimate it appears that about 39 per cent of the cultivated area is irrigated, while 61 per cent is dependent on rain. According to the same calculation, the Bori, Dúki and Músa Khél tahsil have respectively about 75, 45 and 35 per cent of irrigated area, Sanjáwi has 29 per cent and Bárkhán only 11 per cent. The Músa Khél and Bárkhán tahsíls, which are dependent to a great extent on their dry crop lands, are, more liable to scarcity.

The primary cause of scarcity is the failure of the autumn and winter rains, and if such failures continue for two or three years, the scarcity becomes more acute and even famine may result. Failures of the crops in Sind, in the adjoining Districts of Déra Gházi Khán, Déra Ismáíl Khán and Zhob, and in the Marri-Bugti country also affect the prices of staples. Other causes of agricultural loss, which if connected with other influences may cause scarcity, are the visitations of locusts and the appearance of *surkhi* or rust in the wheat crop.

FAMINE.

History of periods of scarcity and protective measures.

The first period of severe scarcity in recent times occurred in Bárkhán in 1840, when the spring crops entirely failed, and the difficulties of the inhabitants were increased by an incursion of large numbers of Bugtis, who had been driven out of their country by the Marris and by the fear of an attack by the British troops under Sir Charles Napier. The famine lasted from March till October and the price of wheat rose to about 6 seers for the rupee. The second period of scarcity occurred in 1860 also in Bárkhán, where the greater part of the spring crops was damaged by rust and the price rose to 5 seers per rupee. The year 1883 was also a time of scarcity, and between 1897 and 1903 the District, like all other parts of Baluchistán, was visited by a succession of unfavourable seasons. In 1898, in addition to the severe drought, the District was visited by a plague of locusts, which ate up the remains of the scanty fodder and caused great distress and mortality among the cattle and flocks. During this year 3,000 maunds of wheat were imported from the Punjab, cattle tax was levied at half rates in many parts of the Districts, and no revenue was taken from thirteen villages in the Bárkhán tahsíl. A sum of about Rs. 16,657 granted from the Indian Famine Relief Fund was also distributed as a dole among the people of Bárkhán and Duki.

In 1899-1900, Rs. 23,721-5-5 was suspended on account of cattle tax, and Rs. 386-11-9 was remitted from the fixed cash assessments in the Sanjáwi tahsíl. In the following year Rs. 1,091-3-0 on account of cattle tax, and revenue to the extent of Rs. 505-11-11 were remitted. Relief works consisting chiefly of the construction and repair of roads, were undertaken at a cost of Rs. 77,773. The construction of the Ziárat-Chautér road, which cost about Rs. 6,000, was also commenced as a relief work for the Dumars and Wanéchis of the Sanjáwi tahsíl. A sum of Rs. 3,487 was at the same time distributed among the destitute *zamíndárs* of Bárkhán from the Indian Famine Relief Fund.

In 1901-02 a sum of Rs. 2,794-4-10 was remitted on account of cattle tax and land revenue. In this year there was a second visitation of locusts, which caused great damage to the fruit trees and grazing. FAMINE.

During the period of scarcity, referred to above, i.e., between 1897—1903, *takávi* advances to the amount of Rs. 54,727-9-8 were given to agriculturists for the purchase of seed grain and plough oxen.

The majority of the permanent inhabitants do not move in time of scarcity, except in Músá Khél where the people who are generally graziers, migrate to more favoured tracts.

The visitations of locusts have already been mentioned in the previous paragraphs. These have caused great damage to the crops and more especially to the grazing; while owing to the scattered nature of the cultivation, the scanty population, and also, it must be confessed, to the apathy and ignorance of the *zamîndárs*, protective measures have been attended with little or no success. The locust destroying fungus was distributed for use but with no results, and in 1901-2 the Political Agent reported as follows:— Locusts.

"The locust destroying fungus was not successful, but towards autumn the locusts were attacked by a disease of maggots and died off in large numbers. Subsequent enquiries have shown that the flies, from which these maggots were bred, belong to the section of the genus 'Sarcophaga' which contains a species known to attack living insects."

CHAPTER III.

ADMINISTRATIVE.

ADMINISTRATION AND STAFF.

The Loralai District was formed in 1903 by taking the Bori and Músa Khél tahsíls from the Zhob District, and the Duki, Bárkhán and Sanjáwi tahsíls from the Thal Chotiáli District.

It is composed of two Districts which are technically distinct: the Duki District, which contains the Duki tahsíl and forms part of British Baluchistán; and the Loralai District, which comprises the tahsíls of Músa Khél, Bori, Bárkhán and Sanjáwi and forms part of the Agency Territories. For purposes of administration the District, as a whole, is divided into three sub-divisions—Bori, Músa Khél-Bárkhán, and Duki-Sanjáwi.

The ordinary headquarter staff consists of a Political Agent, who is also styled Deputy Commissioner for areas in British Baluchistán, and an Assistant Political Agent and Assistant Commissioner who is in charge of the Bori sub-division. A Military Staff Officer performs the duties of Cantonment Magistrate at Loralai. An Extra Assistant Commissioner is in charge of each of the Músa Khél-Bárkhán and Duki-Sanjáwi sub-divisions. The police force is under the control of an Assistant District Superintendent of Police, who has his headquarters at Fort Sandeman and is in joint charge of the police force in the Zhob and Loralai Districts. The question of the appointment of a separate Police Officer for Loralai is under consideration (1906). In each of the tahsíls of Duki, Músa Khél, Bori and Bárkhán, a tahsíldár and a náib-tahsíldár are stationed, with an additional náib-tahsíldár at Bori. The Sanjáwi tahsíl has only a náib-tahsíldár, who exercises the powers of a tahsíldár and magistrate of the 2nd class. The principal duty of these officials is the collection of Government revenue, but they also exercise judicial powers.

The officers in charge of sub-divisions supervise the collection of revenue, occasionally superintend the divjsion of grain, (*batái*) and appraisement of standing crops, (*tashkhís*) and in subordination to the Political Agent, control the tribes within the limits of their jurisdiction. The village revenue staff consists of muhásibs, kánúngos, and patwáris, who are paid Government servants; and village headmen, known locally as *maliks* or *lambardárs*. The latter help in the collection of revenue and are remunerated by a payment of 5 per cent on the gross collections (*haq-i-malikána*). The strength of the revenue staff (1905) is shown below :— ADMINISTRATION AND STAFF.

Tahsíls.	Number of circles.	Muhásibs and kánúngos.	Patwáris.	Headmen.
Músa Khél	4	2	4	116
Bárkhán	6	2	6	127
Duki	4	2	4	73
Sanjáwi	4	1*	3	64
Bori	4	5	11	175
Total ...	22	12	28	555

JUDICIAL. Special laws.

Between 1879—1889 certain Indian Laws were made applicable to certain areas then included in the Thal Chotiáli District and now comprised in the Loralai District, under the authority of the Government of India. In 1890 the Baluchistán Laws Law and Regulation, the Forest Law and Regulation and the Civil Justice and Criminal Justice Law and Regulation were enacted for the Agency Territories and British Baluchistán, and applied to the areas now included in the District. The last two were modified in 1893 and re-enacted in 1896. The circumstances of the District have not, so far, necessitated the enactment of any special laws for it. The Stage Carriages Act has been applied to carriages

* The *názir* of the office of the Extra Assistant Commissioner, Duki, also acts as office kánúngo for the Sanjáwi tahsíl.

JUDICIAL.

plying on the Kach-Ziárat-Smállan and the Harnai-Loralai roads; and the whole of the Public Gambling Act (III of 1867) has been extended to the civil and military station and native town at Loralai, the headquarters of the Duki and Bárkhán tahsíls and the Sanjáwi sub-tahsíl (including the bazar at Smállan). Sections 13, 14 and the last twenty-six words of section 15 of the Indian Arms Act have been extended to the civil and military station at Loralai, the fort and bazar at Sanjáwi, the bazar at Smállan, the civil station at Bárkhán and the civil and military station and bazar at Músa Khél.

Legal practitioners are not allowed to practice in the courts generally, but a pleader may appear in a court in any particular case, whether civil or criminal, with the permission of the Agent to the Governor-General and Chief Commissioner. Petition-writers are of two grades and their appointment is regulated by rules issued by the Judicial Commissioner in 1899. On the 31st of March 1905, there were two first grade and eight second grade petition-writers.

Administration of civil and criminal justice.

The Political Agent and Deputy Commissioner combines the offices of Magistrate of the first class, District Magistrate and Sessions Judge, and is a Justice of the Peace. In respect of civil justice, he possesses jurisdiction to try original suits without limit as regards value. A decree or order made by him in an original suit of value not exceeding five hundred rupees and, in appellate suits, the value in which does not exceed one thousand rupees, is final and subject only to revision. In criminal trials no appeal lies in cases in which he passes a sentence of imprisonment not exceeding one year, or of fine not exceeding one thousand rupees, or of whipping, or of all or any of these punishments combined. The Political Agent is also a Registrar for births, deaths and marriages. The following table shows the subordinate courts, their ordinary powers, and the courts to which appeals lie:—

Courts.	Powers in civil suits.	Powers in criminal cases.	Court to which appeal lies.	Remarks.
Assistant Political Agent, Loralai, and Assistant Commissioner, Duki.	Rs. 10,000.—Power to hear appeals from decrees and orders of tahsíldárs and náib-tahsíldárs throughout the District.	First Class Magistrate. Summary powers. Sub-divisional Magistrate. Power to hear appeals from decisions of 2nd and 3rd Class Magistrates throughout the District.	Political Agent, Loralai, and Deputy Commissioner, Duki. Revision to High Court.	(1) A decree or order made in an original suit of value not exceeding Rs. 50 by a tahsíldár or not exceeding Rs. 100 made by an Assistant Political Agent, Assistant Commissioner or Extra Assistant Commissioner is final but is subject to revision. The revision of orders or decrees in cases not exceeding Rs. 50 in value tried by tahsíldárs lies with the Political Agent ahd Deputy Commissioner.
Extra Assistant Commissioner, Duki.	Rs. 10,000.—Hears appeals from decrees and orders of the tahsíldár of Duki and naib-tahsíldárs of Duki and Sanjáwi.	First Class Magistrate. Summary powers. Sub-divisional Magistrate. Appeals from decisions of 2nd and 3rd Class Magistrates in the Duki and Sanjáwi tahsíls.	Ditto ...	
Extra Assistant Commissioner, Bárkhán-Músa Khél.	Rs. 10,000.—Hears appeals from decrees and orders of the tahsíldárs and náib-tahsíldárs of Músa Khél and Bárkhán.	First Class Magistrate. Summary powers. Sub-divisional Magistrate. Appeals from decisions of 2nd and 3rd Class Magistrates in the Músa Khél and Bárkhán tahsíls.	Ditto ...	(2) No appeal lies in a criminal case in which a Magistrate of the 1st class passes a sentence of im-

Courts.	Powers in civil suits.	Powers in criminal cases.	Court to which appeal lies.	Remarks.
				prisonment for a term not exceeding 6 months only; or of fine not exceeding Rs. 500 only, or of whipping only.
Cantonment Magistrate, Loralai.	...	Second Class Magistrate. Summary powers.	Assistant Political Agent, Loralai. Revision to High Court.	
Tahsíldár, Duki ...	Rs. 300 ...	Second Class Magistrate ...	Extra Assistant Commissioner, Duki.	
Tahsíldár, Bori ...	Rs. 300 ...	Ditto ...	Assistant Political Agent, Loralai.	
Tahsíldár, Músa Khél.	Rs. 300 ...	Ditto ...	Extra Assistant Commissioner, Músa Khél-Bárkhán.	
Tahsíldár, Bárkhán ...	Rs. 300 ...	Ditto ...	Ditto.	
Náib-tahsíldár, Duki ...	Rs. 50 ...	Third Class Magistrate ...	Extra Assistant Commissioner, Duki.	
Náib-tahsíldár, Sanjáwi	Rs. 300 ...	Second Class Magistrate ...	Ditto.	
Náib-tahsíldár, Bori ...	Rs. 50 ...	Third Class Magistrate ...	Assistant Political Agent, Loralai.	
2nd Náib-tahsíldár, Bori	Rs. 50 ...	Ditto ...	Ditto.	
Náib tahsíldár, Músa Khél.	Rs. 50 ...	Ditto ...	Extra Assistant Commissioner, Músa Khél-Bárkhán.	
Náib-tahsíldár, Bárkhán.	Rs. 50 ...	Ditto ...	Ditto.	

JUDICIAL. Additional powers of Sub-divisional Officers.

The Assistant Political Agent and Assistant Commissioner, Loralai, was appointed (1904) an additional District Magistrate under the Frontier Crimes Regulation (III of 1901) and certain powers specified in Part I, clause (*b*) (i) to (v), of the first schedule to that Regulation have been conferred upon the Extra Assistant Commissioners of Bárkhán and Duki. These include, among others, the power to appoint members of a *jirga* and to refer cases to them, and to take security for good behaviour or for keeping the peace for a period not exceeding three years.

Civil justice.

Table XII, volume B, gives details of civil suits disposed of by the courts of náib-tahsíldárs and tahsíldárs between 1893-4 and 1904-5, and those decided by the District and Sub-divisional courts during 1903-4 and 1904-5. Figures for these latter courts previous to 1903-4 are not available. During the quinquennial period 1893-4 to 1897-8 the average number of civil suits disposed of in the tahsíls was 456, in the second quinquennium the average fell to 380, and in 1904-5 the total number of cases disposed of by these courts was 366. In this last year, the number of civil suits disposed of in all courts was 383, of which 286 were original, 1 appellate and 96 were cases of execution of decrees. The total number of civil suits instituted (excluding 3 miscellaneous cases) in 1905-6 was 698, and their aggregate value was Rs. 45,343, or an average of Rs. 65 per case. The petty nature of the cases may be gathered from the fact that there were only 13 cases the value of which exceeded Rs. 500, while in 623 the value was below Rs. 100. The majority of these suits represent cases in which people of India, domestic servants, traders and contractors are concerned, as cases among the indigenous population are generally referred to *jirgas*. In 1905-6, 6 appeals in all were disposed of, of which 2 were dismissed for default, 1 reversed, 2 confirmed and 1 modified. Six miscellaneous appeals were also disposed of.

As regards the execution of decrees the number of which in 1904-5 was 96, the Political Agent remarks that "decrees

JUDICIAL.

in the majority of cases are satisfied out of court, but when applications for execution are instituted, they are generally successful, recourse to attachment being of rare occurrence."

riminal ustice.

The whole of the crime of the District is, roughly speaking, dealt with under the Frontier Crimes Regulation, and the cases are referred to tribal *jirgas*. The cases tried judicially are generally those in which natives of India are concerned, and a few cases among the indigenous population which the District Magistrate may specially order to be tried under the ordinary procedure.

Details of the criminal cases disposed of by the District and Sub-divisional Courts in 1903-4 and 1904-5, and those tried by lower courts between 1893-4 and 1904-5 are given in table XIII, volume B. In the quinquennial period 1893-4 to 1897-8 the average number of cases disposed of by the lower courts was 174, in the quinquennium following the average was 105, while in 1904-5 these courts decided in all 100 cases. In the last-named year the total number of criminal cases disposed of in the District was 130—appellate 6, and original 124. Of the original, 2 were disposed of by the District court, 22 by Sub-divisional courts and the remainder by lower courts, i.e., courts of 2nd and 3rd Class Magistrates. In 1905-6 the total number of offences reported was 166, of which 137 were brought to trial. These included 35 cases under Special and Local Laws, 34 of thefts, 16 of hurt and 10 of assault. The total number of persons under trial was 338, of whom 187 were convicted, the punishment being rigorous imprisonment in 97 cases, simple imprisonment in 2, whipping in 1, fine in 143 (including 59 to whom imprisonment was also awarded) and 3 were required to furnish security. The total amount of fines imposed was Rs. 2,653.

Thirteen appeals were preferred, of which 3 were rejected, 6 confirmed, 3 altered and 1 reversed.

Jirga cases.

The system of the disposal of disputes of all sorts by the elders of villages or tribes is indigenous to the country; the

procedure is simple and has many advantages. It has been regularised from time to time by certain special regulations, the latest being the Frontier Crimes Regulation (III of 1901), which has been applied, with certain modifications, to the Agency Territories and British Baluchistán. The system possesses special advantages when worked in conjunction with the Levy services, under which crime in the areas outside the towns is investigated by the headmen and levies. At the same time it requires continuous supervision by the District Officers to prevent abuses such as spring from ignorance and partiality. JUDICIAL.

Ordinary cases are referred to a council of elders of not less than three members selected from among the headmen of villages, and leading men of tribes, whilst those which involve any question of principle or affect two or more important tribes or two districts, are generally referred to the *Sháhi Jirgas* which assemble at Quetta and Fort Munro in the autumn and at Sibi in the winter. It is the function of the *jirga* to come to a finding of fact on the issues placed before them, and its award is then submitted to the Political Agent with whom alone lies the power of passing final orders in the case, and of determining and awarding punishment under the Regulation. Ordinarily the Political Agent may sentence an offender to seven years' rigorous imprisonment; a sentence exceeding this term, up to a maximum of 14 years, must be confirmed by the Agent to the Governor-General and Chief Commissioner. No appeal lies from awards passed by the Political Agent, but his orders are subject to revision by the Agent to the Governor-General and Chief Commissioner.

Details of the cases disposed of by *jirgas* during 1903-4 and 1904-5 are given in table XIV, volume B. They numbered respectively 1,652 and 1,808; the number referred to local, *sháhi* and other *jirgas* being as under :—

	1903-4.	1904-5.
Sháhi jirgas	138	94
Local jirgas	1,460	1,613
Other jirgas	54	101

JUDICIAL.

Of the 1808 cases disposed of during 1904-5, 20 were cases of murder, 18 of robbery, 48 of adultery, 6 of adultery with murder, 89 of cattle-lifting, 688 of land and revenue, 53 of betrothal and marriage and 833 miscellaneous, the cases between the people of the District and the border tribes of the Punjab being 53.

Local, joint, *sháhi* and inter-provincial *jirgas.*

Almost all cases occurring among the tribesmen of the District are referred to local *jirgas* and they include murder, adultery, matrimonial suits, theft, cattle-lifting and land, etc. It is the policy to restrict investigations by the police, as far as possible, to cases occurring among the non-indigenous inhabitants of the towns and bazars. Ordinary cases between the tribesmen of the Loralai and Sibi Districts are referred to joint *jirgas.*

Nearly all really important cases, whether civil or criminal, all cases where it is necessary to get a ruling on tribal custom or usage, and all important cases between different tribes where it is thought that a local *jirga* would be likely to be biassed, are referred to the *Sháhi Jirga.*

The Fort Munro *jirga* is used in the same way as the Sibi and Quetta *Sháhi Jirgas* for similar cases between tribesmen who are residents of places nearer Fort Munro than Sibi or Quetta. Inter-provincial cases, i.e., cases where one party belongs to the Déra Gházi Khán District and the other to the Loralai District, and other important cases between inhabitants of the Loralai, Zhob and Sibi Districts, are also heard by the Fort Munro *jirga.* As cases occurring between tribes in Baluchistán and those in the Punjab frequently assume serious proportions unless settled without delay, certain rules, under which reports of inter-provincial cases are made to the Political Officers concerned, were framed in September 1882 by Mr. R. I. Bruce, C.I.E., First Assistant to the Agent to the Governor-General in Baluchistán and Mr. (now Sir Frederick) Fryer, then Deputy Commissioner, Déra Gházi Khán, and were notified in *darbár* to the assembled chiefs. They run as follows:—

JUDICIAL.

Rule I.—In all cases of theft or other crime, occurring under such circumstances that the members of one tribe suspect that the offenders belong to another tribe, an immediate report must be made to the Political Officer in charge of the tribe which has suffered, and, if no report is made within one month of the occurrence of the case, no redress shall afterwards be given unless good cause be shown for the failure to report.

Rule II.—In cases in which cattle or other live-stock are missing, and it has not been ascertained whether the cattle or other live-stock have been stolen or have strayed, a report must be made that the property is missing; and should the property be afterwards ascertained to have been stolen or misappropriated a subsequent report will be required setting forth what tribe or what persons are suspected. Notice that the property is missing must be sent in within a month of its being missed.

Rule III.—In cases Nos. 1 and 2 it is not necessary that the thieves, or the tribe to which they are supposed to belong, should be named in the first instance; but information on these points must be given as soon as it is obtained.

Rule IV.—In all cases in which members of one tribe seek refuge with any other tribe on account of any crime they may have committed, or on account of alleged grievances, the chiefs of the tribe to which such refugees belong must send an immediate report stating with what tribe the refugees have taken shelter.

Rule V.—The chief of any tribe in which a refugee may seek shelter shall inform the Political Officer in charge of his tribe as soon as the act comes to his notice.

Rule VI.—Whenever a case which has been duly reported is settled without the intervention of a Political Officer, a report must be submitted by the chief of the tribe or tribes, showing the manner in which it has been settled, and such settlement shall be subject to the approval of the Political Officer concerned.

JUDICIAL.

Rule VII.—All reports made under these rules to a Political Officer shall be at once communicated by him to the Political Officer who may be in charge of any tribe or tribes implicated in the report.

The following interesting remarks on the *jirga* system and the more prevalent forms of crime furnished by Mr. W. S. Davis in April 1905 are reproduced :—

System of selection of members.

"There is no particular system by which members of local or *sháhi jirgas* are selected. Any *malik* or *motabar* who is not a known bad character may be, and is, called upon to serve on local *jirgas*, while only the *sardárs* and really important *maliks* and *motabars* are accorded the privilege of serving on *Sháhi Jirgas.* In the case of Fort Munro *jirga*, invitations to attend are generally confined to chiefs of important tribes.

Classes resorting to *jirgas* and the most prevalent kinds of cases.

"Serious crime such as murder, adultery, cattle lifting and robbery is pretty equally distributed over the Loralai District. The tribes of Bori are rather more given to blood feuds and murder than others. Adultery and its resulting murders, quarrels, and other evils is the common pursuit and I might almost say pastime of every tribe in the District.

"The Muhammadan religion lays down very clearly that women are not to be bought and sold, and gives to woman a much better position than the followers of the Prophet now accord to her. Speaking for the Loralai District Muhammad's injunctions regarding the sale of women are openly disregarded by universal custom. Every girl when near to puberty, and many before they have reached that stage, is openly sold to her future husband for a sum of money, goods and cattle which vary in amount in every tribe. This price is called the *walwar* and in my humble opinion is responsible for nine-tenths of the murders and serious crimes in the District. Before our advent to the country the amount of *walwar* was less than it is now, as the owners of girls found it difficult to recover it and a small sum down was thought better than the prospect of recovering

a larger one by instalments spread over a long period. Since we have come to the country and have enforced the decrees of the *jirgas* for *walwar* it is unfortunately true that the amount demanded and ultimately paid as *walwar* has increased largely, and has made it more difficult for a hot-blooded youth to obtain a wife.

JUDICIAL

"The result is that the youth starts an intrigue with a girl or married woman and very often absconds with her. This leads to murders and blood feuds and many evils. *

* * * * * * * * *

"For generations past the Marris (residents of the Sibi District) have been accustomed to carry off cattle from the Patháns of the Duki and Bori tahsíls and from the Khétráns of Bárkhán. The old-fashioned raid in which many hundred and sometimes several thousand head of sheep and cattle were carried off by Marris has degenerated into petty cattle-thefts and robberies from small unarmed parties who are waylaid by small parties of Marris."

Acceptance of findings by parties

In all ordinary cases, excepting murder cases, the awards of the *jirgas* to the extent of nearly 90 per cent are acceptable to the parties, and applications for revision are rare.

Fanatical outrages.

Fanatical attacks on non-Muhammadans, and especially on Europeans have unfortunately been of somewhat frequent occurrence, and during the period from April 1893 to March 1905, there were 11 such cases, the most conspicuous being the outrage committed in May 1893 on Lieutenant Ford of the 40th Patháns near Hakím Khán Kot in the Zamarai country; that perpetrated on the 14th of March 1898, at the Smállan dak bungalow by one Arsala, an Utmán Khél of the Bori tahsíl, on Lieutenant Colonel G. Gaisford, Political Agent of the Thal Chotiáli District; and lastly the murder of Captain Johnston, I.M.S., at Loralai by Daulat, Hamzazai, of Wahár. The chief cause of these outrages, remarks (1905) Mr. Davis, Political Agent, Loralai, is pure fanaticism on the part of very ignorant tribesmen whose superstition is worked on and excited by fanatical *mullás*. Another cause is attributed to a

JUDICIAL.

desire for suicide with the expectation of subsequent reward if the fanatic dies after having killed an infidel.

Fanatical cases are dealt with under the Murderous Outrages Regulation (IV of 1901). Among its more important provisions may be mentioned the power which it gives to the Sessions Judge or Deputy Commissioner of the District, or to any Magistrate of the first class especially empowered by the Local Government, Sessions Judge or Deputy Commissioner after the commission of an offence to try a fanatic, to pass orders as to the disposal of the offender's body if he is convicted, and to forfeit all his property to Government. No appeal lies from any order made, or sentence passed, under the Regulation and the court may, on the recommendation of a Council of Elders or after such inquiry as it may deem necessary, take measures against any community or individual, with whom a fanatic is or has been associated in circumstances which satisfy it that by reasonable prudence or diligence on the part of the community or individual, the commission or attempted commission of the offence might have been prevented. They include fine and forfeiture of revenue-free grants, remissions and allowances.

egistration.

The Indian Registration Act, III of 1877, is in force in the District. The Political Agent is the Registrar and the tahsíldárs of Duki, Músa Khél, Bori and Bárkhán and the náib-tahsíldár of Sanjáwi are sub-registrars within their respective sub-districts.

The people of Bori are beginning to realise the advantages afforded by registration, but the transactions in the greater part of the District are still generally carried out verbally. Table XV, volume B, shows in detail the number of documents registered, the revenue realised and the expenditure incurred in connection with the registration during each of the twelve years 1893-4 to 1904-5 and the following abstract indicates the general nature of the small amount of work which is done:—

Annual average of 10 years, 1893-4 to 1902-3.						1904-5.					
Documents registered.			Total realisations including copying fees.	Total expenditure.	No. of offices.	Documents registered.			Total realisations including copying fees.	Total expenditure.	No. of offices.
Compulsory.	Optional.					Compulsory.	Optional.				
	Relating to immovable property.	Others.					Relating to immovable property.	Others.			
			Rs.	Rs.					Rs.	Rs.	
16	3	3	53	26	5	11	...	7	50	25	6

Details of the documents relating to the mortgage and sale of immovable property, registered in the Bori and Sanjáwi tahsíls in the year 1904-5, show that 4 out of an aggregate of 6 sales took place between cultivators themselves, there being no mortgage transaction. The number of sales and mortgages to non-agriculturists was one each, the aggregate value being Rs. 2,350.*

In 1905-6 there were 6 registration offices, and the number of documents registered was 19, relating to immovable property (compulsory registration) of the value of Rs. 13,579. The number of registered documents affecting movable property was 12 of which the value of 7 was Rs. 2,185 and that of 5 was not specified. The total fees realised amounted to Rs. 77-8-0.

* Includes Rs. 2,200 for land sold to Government in Bori.

JUDICIAL.

Mutation registers are maintained in the Sanjáwi tahsíl, but the people do not yet avail themselves of the advantages afforded by them.

FINANCE.

[B]rief history.

The revenue and expenditure of the Duki tahsíl were treated as "Imperial" up to the 31st of March 1897. Similarly the finances of Bárkhán, Sanjáwi and Bori were classed as Imperial up to March 1890, when they were amalgamated with the quasi-provincial arrangement made for the Zhob District which terminated on the 31st of March 1893. During this settlement the cost of Police and Levies in the Bori valley and the new Khétrán and Drug levies was charged to the Provincial Revenues, the other charges connected with the levies being debited to the Provincial allotment for Police and Levies sanctioned in April 1890. The quasi-provincial settlement continued up to March 1897, when the first contract or settlement for the whole Agency, which included also the Duki tahsíl, was sanctioned for a period of five years and again extended in April 1902 for a similar term. Table XVI, volume B, shows the revenue of the District from all sources, in each year from 1897-8 to 1904-5. The sources of income are Land Revenue, Excise and Stamps to which are added minor items under Law and Justice, Registration, Assessed Taxes, Public Works and Miscellaneous. The annual receipts during the quinquennial period of 1897-8 to 1901-2 averaged Rs. 2,13,857, to which Land Revenue contributed Rs. 1,90,347, Excise Rs. 7,062, Stamps Rs. 5,101, and other items Rs. 11,348. In 1902-3 the receipts amounted to Rs. 1,92,785, while in 1904-5 they were Rs. 1,97,874. Out of the total amount realised in the latter year, Land Revenue contributed Rs. 1,69,403, or about 86 per cent, Excise Rs. 5,314, Stamps Rs. 7,169, and the balance of Rs. 15,988 was made up of Registration, Law and Justice, Miscellaneous and Public Works. Where the Land Revenue is chiefly levied by a share of the produce, the receipts must necessarily vary with the seasons. During the period of eight years comprised in the Table, the lowest receipts Rs. 1,81,317

(including Rs. 1,56,867 on account of Land Revenue) were realised in 1899-1900, the decrease being due to the smaller area brought under cultivation and the suspension of the grazing tax, owing to mortality among the cattle, in the Duki, Bárkhán and Sanjáwi tahsíls.

LAND REVENUE. Duki tahsíl. Early revenue history.

It appears that in the time of Akbar (1556—1605), Duki, which formed a District of Kandahár, paid 6 *tumans* in money, 1,800 *kharwárs* of grain, 12,000 sheep and 15 Baluchi horses; and the Afgháns of the Tarín and Kákar tribes supplied a contingent of 500 horse and 1,000 foot. In 1882 Dr. Duke calculated the value of grain at Rs. 2 per maund, sheep at Rs. 3, and horses at Rs. 150, per head and thus estimated the total revenue at Rs. 74,325. He was of the opinion that the Duki District included the country between Ziárat Tsarai or Kotal on the west and Lúni Tangi on the east and also the Pazha, Kohlu, Máwand and Gamboli valleys, and that the taxes derived from the nomad tribes were evidently included in the Duki revenues.

Reference has already been made under **History** to the revenue levied at Thal by Ahmad Sháh Durráni. The *kárézes* were exempt, but the Tarín lands irrigated by the Thal and Anambár streams poid Rs. 3,104 as revenue. Writing in 1882 Dr. Duke said* :—

"In a memorandum by Sir Henry Rawlinson dated 1841 it is stated that the Thal and Chotiáli revenues amounted to 372 *tumans* and 5,000 *dinárs* (Rs. 3,104 *kaldár*); this tax was levied from the Taríns, and was a summary adjustment in lieu of capitation tax, cattle tax, service of all sorts, etc. * * * * * *

"I cannot ascertain what tax was put on the Duki township; the old paper shows that it was, as before stated, regularly assessed, but the Duki people state that latterly they paid nothing to Government; there is certainly no mention in Sir Henry Rawlinson's report of any tax in cash having been levied. As, however, it was always one of the first places

* Dr. Duke's report on Thal Chotiáli and Harnai District. (Calcutta, 1883.)

LAND REVENUE.

visited by the Amír's Agent it is certain that the Duki Taríns contributed to the Kandahár revenues. The Agent probably took from them a regular ryoti share.

"The small amount, and the mode of collection of the Thal revenues in Ahmad Sháh Durráni's time, show what a slight hold even that powerful prince must have had on the valley, but light as the taxation was, owing to the very great scarcity of money and the lowness of the price of grain, the Taríns seem to have found some difficulty in paying it, the Kandahár chief gave them no protection, they were harassed by neighbouring tribes, and by the exactions of the Agent sent from Kandahár. When, therefore, Shádo, a wealthy Kibzai Kákar from Bori, appeared at Thal, they welcomed him as a deliverer and made over to him the whole of the Thal water for a small payment, on condition that he should arrange for the payment of the Amír's dues.

* * * * * * * * * * *

"About 28 years ago an infantry regiment came from Kandahár and stopped at Thal for one month; the people supplied the soldiers with grain free, which the men ground themselves; they were accompanied by Shádo Khán, Durráni of Shálkot; during their stay at Thal, the Marris murdered some 14 Hasnis and Shádozais, but the Amír's troops did not attempt to retaliate. In fact, in return for the revenue taken, the Amír of Kábul afforded no protection or assistance to the Thal people; they were left to manage their affairs in their own way as best they could.

"The Batézais from Bazár in Pishín seem to have been next employed by Kandahár Sirdárs to collect the Thal revenue; the Amír's agents usually came to Thal from the Zawar valley viâ Rikhpur and Duki, carefully avoiding the Sembhar Pass; for the only occasion on which they traversed it, they engaged Marri *badraggas*; one year they came by Smállan and Bagháo. The Thal *maliks* state that no revenue had been collected from Thal Chotiáli for 14 years before the arrival of the British at that place."

The Shádozais later on invited the Lúnis and the Hasnis to settle in Thal, gave them lands to cultivate and realised revenue from them. "Thus, on the arrival of the British at Thal in 1880, the following was the position of affairs: the Shádozais were the leading men in Thal, enjoying one-half of the produce of lands watered by the Thal stream; also revenue varying from one-seventh to one-fifth from lands held by the Hasnis; and one-sixth of the produce of a portion of the lands held by the Lúnis; they took nothing from Duki, which had always remained independent of them; neither did they receive a landlord's share for the *káréz* and storm watered lands; on the other hand, they undoubtedly paid blackmail to the Marris who vexed them in many ways. LAND REVENUE

"When we commenced to take revenue at Thal Chotiáli in 1880, the Lúnis declined to pay the Shádozais anything at all, and the Hasnis raised the question of the Shádozais' right to tax them except for their lands watered by the Thal river."

On the occupation of Duki by the British Government, revenue was taken in kind at the rate of one-sixth of the produce, and this system still continues. In 1881-2, the first complete year of administration, the revenue amounted to Rs. 24,645. In 1904-5 the total land revenue was Rs. 44,814 as shown below:—

	Rs.
(*a*) Value of revenue collected in kind ...	35,319
(*b*) Miscellaneous land revenue ...	2,949
Grazing Tax—	
(*c*) From settled inhabitants ...	3,193
(*d*) From nomads	3,353

As already mentioned, Sanjáwi apparently formed part of Duki in Akbar's time, but during the Afghán rule, the inhabitants allege that they paid no tax on land, but that the Afghán officials occasionally took a sheep or goat from each flock. The Púi Saiads, and their neighbours the Kanozai Dumars are alleged to have escaped even this payment. Sanjáwi sub-tahsil.

LAND REVENUE.

The first attempt to impose revenue in Bagháo was made in 1881 when Lieut. Jennings collected a small amount once or twice, but it was considered inadvisable to impose any revenue until the whole tahsíl was brought under administration. Revenue was again levied in 1887-8 when the receipts amounted to Rs.17,347; but a systematic collection of revenue was begun only in 1891 when revenue at the rate of one-sixth of the produce was imposed. Sanjáwi first formed part of Duki, then of Bori, and was re-transferred to Duki in 1895-6, for purposes of revenue administration. Up to March 1896 revenue was collected partly by *batái* and partly by *ijára* or *kankút*. In 1896 Major MacIvor, then Political Agent, Thal Chotiáli, proposed a summary cash assessment for irrigated lands, based on a fair average of the amount of produce actually received in revenue for the preceding four years, an exceptionally bad year being sometimes rejected and the amount of produce thus arrived at being converted into cash at certain reasonable rates which were agreed to by the *maliks*. The assessment was sanctioned for three years, and subsequently extended to March 1901. During this period of five years the revenue, excluding the amounts realised from dry crop areas and grazing tax, averaged Rs. 14,040 per annum. In 1901, a cash assessment of Rs. 13,421 per annum was sanctioned for a term of ten years, and the receipts in 1901-2 amounted to Rs. 19,652, including revenue from dry crop areas, cattle tax and tax on water mills. In 1904-5 the total revenue amounted to Rs. 18,843 as shown below:—

	Rs.
(*a*) By *batái* or *tashkhís* in kind ...	2,080
(*b*) By fixed assessment	12,612
(*c*) Miscellaneous land revenue ...	317
Grazing Tax.	
(*a*) Settled inhabitants	3,161
(*b*) Nomads	673
Total	18,843

LAND REVENUE
Bárkhán tahsíl.

The Khétrán country, which is said to have been known as Junjah in the time of Akbar, formed a sub-district of Séwistán in the Hind province of Tatta, and its revenue assessment was 19,78,953 *dáms* equivalent to Rs. 18,553.*

Later on, the Bárúzai Panri Afgháns are believed to have ruled the country, and to have levied a tax of one sheep or goat per flock of 50 and over, and a share of the produce of land which varied from one-fourth to one-seventh. It is stated that the name Báro Khán subsequently converted into Bárkhán was derived from Báro the progenitor of the Bárúzai family. Báro Khán either ruled the country on behalf of the governors of Sibi or owned it himself. He was represented by a *náib,* who is stated to have visited Khétrán every year, and on each occasion he violated the chastity of some Khétrán woman.

This conduct led to his being murdered and the Khétráns state that no more Bárúzai *náibs* came after this occurrence. According to another version the Mazaráni and the Chacha *sardárs* gave girls in marriage to the Bárúzai leading men, in consideration of which the Bárúzais withdrew from the country. The Mazaráni and Chacha *sardárs* levied from their respective clans the cattle tax called *ghal*, at the rate prevalent under the Bárúzai rule and the Mazaráni chief also levied transit dues which were abolished after the occupation of the valley by the British Government and the headmen concerned were granted compensation allowances and *múafis* which are mentioned later on in this section.

Before the British occupation of the valley, the chief of the Leghári Baloch tribe took from the Náhars in the Leghári-Bárkhán circle a share of the produce at rates varying from one-sixth to two-ninths. In lands which were the property of the Nawáb, his share was one-half of the produce, while the Sheikhs, a sacred class, paid only one-twentieth on lands cultivated by them. In 1887 the Khétráns submitted to Government and offered to pay revenue, which

* *Tuman* is equal to 800 *dáms*; 40 *dáms* equal to 1 *tabrézi* rupee; 8 *tabrézi* rupees equal to 3 Indian rupees.

LAND REVENUE.

was imposed at the rate of one-sixth of the produce, and in the first year (1887-8) the realisations from the *kharíf* crop amounted to Rs. 15,766 and in 1888-9 the total revenue of both crops was Rs. 34,481. The revenue in the first two years, in Leghári-Bárkhán, was assessed and levied through the Leghári chief. After a prolonged correspondence, the claim of the Leghári chief, as superior proprietor, was admitted, and in April 1897 an agreement was made under which revenue in Leghári-Bárkhán was imposed at one-fifth of the produce, a third of the proceeds being given to the Leghári chief.

In 1904-5 the total revenue of the tahsíl amounted to Rs. 38,183 as detailed below :—

			Rs.
	Land Revenue.		
(*a*) Levied in kind	...	...	31,889
(*b*) Miscellaneous revenue	...	...	1,048
	Grazing Tax.		
(*a*) Settled inhabitants	...	...	4,410
(*b*) Nomads ...	...	...	836
	Total ...	...	38,183

Bori tahsíl.

The Kákars of Bori do not seem to have paid any revenue before the time of Ahmad Sháh Durráni. During his time, the Jogízai headmen of Kila Saifulla used to collect a number of sheep from the Kákar flock-owners and take these as a present to him at Kandahár where they were given *khillats*. The contributions from the Bori Kákars were collected by the Fakírzai Alízai family whose headman at the time was Kalích, and whose representative (1905) is Wali, son of Shéra. This man has, however, no influence now.

On the occupation of the valley in 1886, the Government of India desired that Political Officers should confine themselves to raising such revenue as might be easily and willingly paid by the tribes, and in accordance with this principle the Agent to the Governor-General directed

that the payment should be taken by levying a certain proportion of the gross produce of land, and that the proportion should in no instance exceed one-sixth, and might be less in special cases. The revenue assessment began with the *kharíf* crop of 1886, and during the first completed year, viz., 1887-8, it amounted to Rs. 67,004. The revenue is levied either by *batái* or *tashkhís*, and in some cases by a cash rate on miscellaneous green crops. In 1904-5 the total revenue amounted to Rs. 43,319 as detailed below :— LAND REVENUE.

Land Revenue.

	Rs.
(a) In kind	35,364
(b) Temporary contract	71
(c) Miscellaneous revenue	2,650
Grazing Tax.	
(a) Settled inhabitants	3,314
(b) Nomads	1,920
Total	43,319

Municipal lands at Loralai.

The lands acquired from Civil Funds and included within the limits of Loralai town were treated as the property of the Town Fund, to which fund income derived from such lands was credited. The area of the land was found to be about 17 acres, of which 4 acres were under gardens and 13 acres under cultivation. In 1897 the Government of India decided that no revenue was to be levied from market-garden lands within municipal areas, and the Agent to the Governor-General ordered that from April 1898 half of the income derived from the 13 acres under crops should be credited to Provincial Revenues.

Músa Khél tahsíl.

In 1890 when the Músa Khél country was included in the newly formed Zhob District, revenue was imposed at the rate of one-sixth of the produce, and this system is still in force. The Government share is determined as usual by *batái* (division of the grain heap), or by *tashkhís* (appraise-

LAND REVENUE.

ment of standing crops). In 1904-5 the total revenue was Rs. 24,244 as shown below :—

	Rs.
Land Revenue.	
(*a*) In kind	14,237
(*b*) Miscellaneous revenue	88
Grazing Tax.	
(*a*) Settled inhabitants	8,655
(*b*) Nomads	1,264
Total	24,244

Taxation on straw.

The straw of *chína* and *kangni* is not taxed, while for that of other crops a share equivalent to the amount of grain is taken for Government in all the tahsíls.

The *batái* system.

The rough and ready methods adopted in the early days of the District, for the collection of the revenue in kind, are indicated by the following account by Captain G. Gaisford of the proceedings in Duki, which may be taken as typical of all parts of the Agency. On his arrival in the Thal Chotiáli District, in May 1883, he found the *rabi* harvest in progress. The tahsíldár was engaged in realising one-sixth of the grain as the Government share. He had guards (*karáwas*) posted at the villages to see that no grain was surreptitiously removed from the threshing floors before the *batái* or division was made. The men employed consisted of one or two servants of the tahsíldár, some local men, and Punjábis. Captain Gaisford soon saw that the system was bad and that the *karáwas* were not to be depended upon. As they were merely employed temporarily, and had nothing to look forward to, their one object was to make as much and do as little as possible. As a rule the villagers made them comfortable, killing a sheep for them occasionally and providing them with the best of everything. In consequence, Captain Gaisford advocated the employment of native cavalry sowars, and the following

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system was adopted. The villages were divided into groups, and each group was put in charge of a *daffadár*, who was responsible for it. Each village had two sowars told off to it; one of these had to remain at home, while the other patrolled all round the crops and threshing floors. The sowars were sent out before the grain was ripe, and their chief duty was to see that the cattle were not allowed to trespass in the standing corn. As the wheat or barley was cut, it was collected and taken to the threshing floors, which were located as centrally as possible. Gleaners were permitted on ground from which the sheaves had not been removed. Energetic women were watched and it was found that none could collect and beat out more than 5 seers of corn daily. This was, therefore, the maximum amount that any woman or boy was allowed to take into the village; and for this the sowar at the door was responsible. When the grain had been cut, collected, trodden out, winnowed and cleaned, each man made his portion into a large heap. Under the supervision of the *daffadár*, these heaps were divided into six equal lots. One was taken for Government and then put into bags, loaded up, and taken to the granaries by the *zamíndárs*. The wheat was measured by the country measure, or *path*, as it was put into the bags, and at the granary it was weighed before being stored. The wheat was sent off, usually under charge of a levy sowar who was given a *chalán* by the *daffadár* who took the *batái*. Each sowar was given a *thappa* or stamp, and, as soon as the wheat had been trodden out, or was in a more advanced stage, it was the sowar's duty to affix a mud seal on every heap at nightfall. At daybreak each seal was again inspected, and, if found intact, the *zamíndár* was permitted to continue his work. If broken, the heap was investigated. Sometimes dogs and jackals were the cause, sometimes the grain had been stolen. Each case was investigated by the *daffadár*, and a report sent to the tahsíldár. If the tahsíldár and his subordinates were fairly active and continually on the move, the system was found to work fairly well, and the *zamíndárs* were not dissatisfied.

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This system is, with slight modifications, still followed in places where revenue is taken by *batái*. Troops are, however, no longer employed, their place being taken by the sub-divisional and tahsíl officials, assisted by local levies and occasionally by paid *mushriffs*.

The *tashkhís* or appraisement of standing crops is also resorted to in Bori, Músa Khél and Bárkhán and in outlying dry crop tracts in Duki and Sanjáwi. A revenue official, not below the rank of a náib tahsíldár, visits the crops in company with two or more expert *zamíndárs* and with the consent of the headmen of villages determines the Government share of revenue. The assessment is generally imposed on a village, the cultivators distributing it amongst themselves on the actual outturn of their harvests.

Cash rates on miscellaneous crops.

Revenue on miscellaneous green crops such as wheat and barley cut green, melons, vegetables, etc., is assessed by rough measurements of the area under cultivation, at rates which vary in different tahsíls. The rates prevalent at present (1906) are given in the following table:—

Tahsíls.	Rabi.								Kharif.			Remarks.
		Sweet melons.		Water melons.			Onions Kandahári.					
	Sabz khurda.	1st class.	2nd class.	1st class.	2nd class.	Onions.	1st class.	2nd class.	Lucerne.	Carrots and other vegetables.	*Sabz khurda.*	
	Rs. a. p.	Rs.	Rs.	Rs.	Rs.	Rs. a.	Rs.	Rs.	Rs. a. p.	Rs.	Rs.	
Duki including Sanjáwi.	8 5 4	*8	5	*8	5	12 0	...	...	5 0 0	5	5	* This rate is applicable to melons cultivated by Kandahárís for sale only.
Bárkhán ...	8 5 4	8	5	8	5	12 0	...	...	5 0 0	5	5	
Músa Khél	8 5 4	4	2	4	2	1 8	...	...	...	...	...	
Bori ...	8 5 4	10	4	...	10	30 0	50	18	8 5 4	5	6	

NOTE.—The rates given represent the value of the Government share of revenue taken at one-sixth.

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Sale of revenue grain and straw.

The Government share of the grain in the whole District, except the Músá Khél tahsíl, is sold by public auction, subject to the sanction of the Revenue Commissioner. The sales take place before the *batái* at each harvest and the usual conditions for purchasers, other than *zamíndárs*, are that delivery must be taken at the threshing floor or at such other place as may be fixed by the sub-divisional officer or the officer authorised by him in this behalf. The *zamíndárs* in such cases carry the grain to the nearest village, or the central place appointed for the purpose. In the Músa Khél tahsíl the revenue grain is sold back to the *zamíndárs* at rates approved, for each harvest, by the Revenue Commissioner. The Government share of the straw, viz., *bhúsa* and *karbi* is generally sold back to the *zamíndárs* and of late the system of fixing rates for a term of years has been introduced. In the Duki circle of the Duki tahsíl the rate of *bhúsa* has been fixed at 4 annas a maund for three years from April 1904, and in other circles the rate of *juári* stalks has been fixed at 2 annas and that of *bhúsa* at 4 annas a maund for three years from April 1906. In Bárkhán the *zamíndárs* have accepted a 4 anna rate per maund for *bhúsa* for five years from April 1903, and the rates in Sanjáwi have been fixed at 5 to 6 annas for *bhúsa* and 3 to 4 annas for *karbi*, for three years from April 1906. In other places the rate is determined at each harvest.

Settlements and their periods. Sanjáwi settlement.

In 1899, proposals were submitted by Mr. E. G. Colvin, then Revenue Commissioner, to extend the settlement operations to the Sanjáwi sub-tahsíl. The principles laid down for the settlement were that it should be summary, but still such as to be much in advance of the arrangements already in force, and to supply an authoritative record of rights; that the assessment was to be light, and that little increase of revenue was to be expected; that unirrigated land of any considerable value should be excluded from the fixed assessment.

The survey and settlement was carried on during 1899-1900 under Mr. Colvin's orders, and a field-to-field survey

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was done on the scale of 16 inches to a mile. The assessment was based on the produce of principal crops, ascertained by experiments and valued at reasonable rates, a lower rate being adopted in places where the soil was poor and no market for the sale of produce existed in the vicinity. The net result was an assessment of Rs. 13,421 per annum on irrigated lands, excluding revenue-free holdings which gave an all-round rate of Rs. 2-5-1 per acre on irrigable area, R.1-10-10 on total area, and Rs. 3-5-2 on area under cultivation in 1899. The highest rate per acre under cultivation in 1899 was Rs. 4-0-9 in the Bagháo circle, and the lowest Rs. 2-11-6 in the Púi circle. The period of settlement was fixed at ten years from the 1st of April 1901, on the understanding that the cultivation from all new sources of irrigation in estates subject to assessment would not be liable to additional revenue during the period of the settlement. The assessment was confined to irrigated areas, while in unirrigated tracts the revenue was, and is still (1905), levied at the rate of one-sixth of the produce.

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The internal distribution of the old village assessments (introduced in 1896) had been made in accordance with shares held by the payees in water. The new assessment was distributed in 23 *mauzas* on various classes of land, in 13 *mauzas* on water, and in Shírín and Mandokra it was distributed summarily on the entire irrigable area. In each and every case the distribution was effected in accordance with the wishes of the proprietary body.

The assessment, after the resumption of some *muáfis*, and certain alterations since made stood on the 31st of March 1905 at Rs. 13,368-8-0 and is payable on the following dates:—

			Rs.	a.	p.
31st of October	...	...	1,762	1	3
1st of November	...	...	662	6	0
1st of December	...	...	1,877	12	6
1st of February	...	...	4,248	8	0
10th of February	...	...	355	0	0
15th of February	...	...	4,462	12	3
			13,368	8	0

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Revenue survey of Bori.

Proposals to carry out settlement operations in the Bori tahsíl were made by Mr. (now Sir Hugh) Barnes in February 1899 and were approved in the same year, but the establishment was engaged in other parts of the Agency, and the work could not be commenced till April 1903 when the traverse survey of the tahsíl was undertaken by an officer of the survey of India.

In the meantime Mr. E. G. Colvin, then Revenue Commissioner, represented that it would be inadvisable to introduce a cash assessment; the reasons being that the *tashkhís* or appraisement of crops by which revenue had been taken, was a rough and ready method which did not afford reliable data, that the people were strongly opposed to a fixed cash assessment and a settlement by consent would involve a considerable loss of revenue while a settlement on any other terms would probably be politically unwise, and moreover there were large tracts of *khushkába* or dry crop cultivation which did not lend themselves to cash assessment. These views were accepted by the Government of India.

The settlement operations which were completed in 1905 were, therefore, confined to revenue survey and preparation of a record of rights. The survey was a field-to-field one on scales of 60 and 30 *karams* to an inch, the larger scale having been adopted where the minuteness of the divisions of land required it. The following table shows the area surveyed in the tahsíl :—

No. of villages.	No. of estates.	No. of holdings.	Irrigable area.	Gardens.	Dry crop land.	Total cultivable area.	Uncultivated.				Grand total.
							Culturable.	*Chaman.*	Unculturable.	Total.	
			Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
179	289	8,535	35,926 11,702* 47,628	98	474	48,200	47,200	1,095	46,931	95,226	143,42[illegible]

* *Sailába.*

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Duki and Bárkhán settlements.

As a preliminary step towards settlement operations proposed to be undertaken in the Duki and Bárkhán tahsíls, after completion of the work in the Bori tahsíl, a traverse survey of the former was carried out in 1904 by an officer of the Survey Department of India. The cadastral survey, however, has not yet (1906) been undertaken as the settlement staff has been employed on the re-settlement of the Quetta tahsíl.

Review of existing assessment.

As uniformity does not exist, it will be useful to summarise briefly, in the form of a statement, the various systems of revenue prevailing in different parts of the District :—

Area.	Description.	Revenue system.	Period of settlement, if any.
Sanjáwi ...	Irrigated land ...	Cash assessment ...	10 years from 1st April 1901.
	Unirrigated lands	Revenue in kind at the rate of one-sixth of the produce.	
Bori, Duki and Músa Khél.	Irrigated and unirrigated lands.	Revenue at the rate of one-sixth of the produce.	
Bárkhán ...	do.	Leghári-Bárkhán. Revenue in kind at the rate of one-fifth out of which one-third is paid to the Leghári *sardárs*. In other parts at the rate of one-sixth of the produce.	

Record of rights and its maintenance.

The record of rights prepared in the Sanjáwi tahsíl comprises the index to the settlement record; *fahrist-i-mália* or list of assessment; *shajra* or survey map; *khasra* or field index to the map; *fahrist-i-mahálwár* or list showing all documents relating to an estate; *shajra-i-nasab* or genealogical table of the proprietary body; *fard-i-taqsím-i-áb* or list showing rights in water; *khatauni* or list of holdings, which shows all owners and co-sharers, and also tenants and mortgagees with possession; *fard-i-ásiáb* or list of mills; *iqrár-náma-i-mália* or engagement for revenue;

fard-i-máfiát or list of revenue-free holdings and the *khéwat* or record of the shares and revenue responsibility of each owner or member of the proprietary body.

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With the exception of the *fahrist-i-mália*, *iqrár-náma-i-mália* and *khéwat*, the record of rights of the Bori tahsíl contains the same documents as were prepared for the Sanjáwi tahsíl.

The village revenue staff is required to keep this record up to date, and every patwári has to maintain, for each of the *mahál*s in his charge, a harvest inspection register; a return of crops; a register of mutations; a yearly total of transfers; *jamabandi* or a statement of revenue demand, and a yearly register of area showing how every acre in the estate is disposed of, i.e., as cultivated, left fallow, newly broken up, etc. When issuing these rules the Revenue Commissioner directed that "first of all patwáris should prepare, under the supervision of the field kánúngos, a copy of the field maps (*shajra-girdáwari*) of their own *mauzas* by means of a tracing on calico, as described in Appendix VIII of the Manual of Mensuration for patwáris. This map should give only the shape of the fields and their *khasra* numbers, without giving their dimensions, and shall be called *shajra-girdáwari*. It will be used by the patwáris at the time of making crop inspections, and being handy and portable will be most suitable for out-door work."

Statistics of land revenue.

As the major portion of the revenue is levied in kind, the aggregate amount collected fluctuates with the character of the agricultural seasons and the prevailing prices. Table XVII, volume B, shows the revenue in kind realised in each tahsíl for each of the eight years from 1897-8 to 1904-5 and the average price at which each article was sold. The principal item is wheat. The largest amount of produce collected was 55,655 maunds in 1903-4, which was sold at an average rate of R. 1-13-10 a maund, and the lowest 27,582 maunds in 1902-3 which brought an average price of Rs. 2-6-5 per maund. The decrease in the latter year was attributed partly to the want of seasonable rain

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and partly to the damage caused to the crops by locusts and hail in the Duki and Bárkhán tahsíls. In 1904-5 the total revenue in wheat amounted to 54,053 maunds and was sold at an average rate of R. 1-7-7 per maund. Of the total, the amounts contributed by each tahsíl were: Sanjáwi 1,227, Duki 17,653, Bori 13,158, Músa Khél 3,728, and Bárkhán 18,287 maunds. The principal items of revenue from the *kharíf* harvest in 1904-5 were *juári* 2,828 maunds (average price R. 1-9-7 per maund) and maize 3,743 maunds (Rs. 2-0-2). The largest amount of maize (4,732 maunds) was realised in 1902-3 (price Rs. 2-0-8) and the lowest amount (2,723 maunds) in 1899-1900. The falling off in the revenue in the latter year was due to the scanty rainfall and to the scarcity that prevailed in the greater part of the District.

Table XVIII, volume B, besides embodying the figures obtained from table XVII, also shows the land revenue realised in cash, such as temporary contracts, miscellaneous land revenue, tax on water mills and grazing tax, during the eight years ending with March 1905. The annual average receipts for the quinquennial period ending with the year 1901-2 amounted to Rs. 1,90,347, the highest amount Rs. 62,515 being contributed by the Duki tahsíl and the lowest Rs. 18,156 by the Sanjáwi sub-tahsíl. During 1904-5, the total receipts of the District amounted to Rs. 1,69,403, the amounts contributed by each tahsíl being: Sanjáwi sub-tahsíl Rs. 18,843, Duki Rs. 44,814, Bori Rs. 43,319, Músa Khél Rs. 24,244 and Bárkhán Rs. 38,183. The total amount comprised Rs. 1,18,889 the value of revenue assessed in kind, Rs. 12,612 assessed under regular settlement, Rs. 71 by temporary contract, Rs. 7,052 miscellaneous and Rs. 30,779 on account of grazing tax.

Land tenures. *Jágirs.*

The land tenures of the District are of a simple nature. Government is the sole collector of revenue except in the Legħári-Bárkhán circle of the Bárkhán tahsíl where a special arrangement exists. Under an agreement made in April 1897, the Legħári *sardárs* have been recognised as superior

proprietors (*àla málik*) and as such are paid one-third of the revenue which is levied at one-fifth of the produce, in nine villages and settlements cultivated by the Náhars. They have also certain privileges in respect of lands outside these villages and settlements, which are detailed in the agreement, and mentioned in Chapter IV.

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The origin and character of the tenants.

Most of the cultivators are peasant proprietors, the only other classes represented in the District are tenants, the majority of whom are only temporary. The greater part of the land remained uncultivated and was gradually occupied by the different tribes first for grazing and then for cultivation. A general distribution of the country among the twelve sections descended from the twelve sons of Sanzar is said to have taken place in the time of Sanzar Nika, when the Bori valley fell to the share of the Arabi Khéls and the Zakhpéls. The internal division among the sections was made in proportion to the number of families, and in some cases among the adult males. Land was also acquired by purchase as compensation for the loss of men killed in the tribal blood feuds, and occasionally in part payment of bride-price. *Hamsáyas* were sometimes admitted into the tribes and given a share in the tribal land, and in some cases these *hamsáyas* agreed to pay a rental in kind to the landlords. Thus in the time of Ahmad Sháh Durráni the Taríns of Duki sold their lands for a nominal payment to the Shádozais, in order to save themselves the payment of revenue, and the Shádozais being small in number invited the Lúnis and Hasnis and gave them lands on payment of rent or *haq-i-topa*. The Hasnis still (1906) pay rent to the Shádozais, at a rate which varies from $\frac{1}{2}$ on the irrigated plots (*bogras*) close to villages to $\frac{1}{10}$ on the dry crop land, after deducting Government revenue and wages of village servants. In some cases lands have been given to *hamsáyas* on condition that they should feed, in turn, a specified number of guests, *náthi*; this system obtains in the Hosri and Wárézai villages occupied by the Zarkúns, in

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Duki, and also in some villages in the Bárkhán tahsíl. In these various ways a body of peasant proprietors has arisen owning their own lands and cultivating their fields.

[C]ustom of [p]eriodical [d]istribution [o]f land.

In most parts of the District, the lands, both irrigated and unirrigated, are permanently divided. In Bárkhán the lands in the Jehándún, Jhali, Nílra, Vitákri, Sangiáli-Kákor, and some portions of Chacha and Mat are held jointly by the proprietary body and are divided annually in accordance with the shares in water. In the Duki tahsíl, the lands irrigated by the Duki stream are also divided for each harvest according to shares in water; but the plots close to villages used chiefly as orchards (*géwára*) are permanently divided. In Sanjáwi the only cultivable tract which is undivided is Kharáshang which is owned by the Dumars. Portions of it have been gradually reclaimed by individual members of the tribe, but according to custom they cannot transfer their lands to any one but a Dumar, or to such Saiads as are permanently residing among the Dumars.

In the Bori tahsíl the dry crop lands, and the plots attached to villages are permanently divided, but in several villages the irrigated lands are divided once a year on the basis of shares in water. The Sargaras of Dirgi follow a peculiar system of annual distribution of land for the *rabi* crop. An adult male gets one share; a married man (whose wife is living) two shares; a widower a share and a half; a widow half a share; and an orphan one share. When a person leaves the village, except as a temporary measure either to prosecute his studies or to earn his livelihood, he forfeits his share.

[T]enants and [t]enancies.

The lands are, as a rule, cultivated by the proprietors themselves, but in some cases tenants are employed. The majority of these tenants, as already stated, are tenants-at-will, who are ordinarily changed after each harvest; but in some cases a tenant who has raised the *rabi* crop can claim to raise the *kharíf* crop also. In some cases tenants are engaged for longer periods, and a few cases are known in

which tenants, who have made embankments in dry crop areas, have no term of years fixed for them. In the Músa Khél tahsíl, the Lúnis of Duki own the lands in Kingri, Sarín, Rára, and Indarpur which are cultivated by Kharshíns. Bél Khéls, Laharzais, Buzdárs, Isots and Marris, who pay one-fifteenth of the gross produce to the Lúni chief as rent or *haq-i-topa.* In Bárkhán there are tenants in various villages whose terms vary from seven to sixty years and the *haq-i-topa* rate from one-sixth to one-fortieth of the produce. The tenants in Tang Kárér, Chhaudi, Tabal, Tah Jamál Khán and Kach pay to the Lúni chief one-eleventh of the produce as rent, and have an alienable right in their tenancies. Similar rights are said to be possessed by the Luhma tenants in Maror Salaráni, by Wagas in Chhapar Waga and Lala; and by the tenants in Uchri. The general rate of rent is one-fourteenth of the produce but in Uchri it varies from one-fortieth to one-eleventh.

The Hasni tenants who pay rent to the Shádozais have already been mentioned; and the *lath-bandi* system, under which the tenants make embankments and pay a share of the produce as rent to the proprietors, exists in dry crop areas in Duki and Bori.

Size of holdings.

No information as to the size of holdings is available for the Duki, Bárkhán and Músa Khél tahsíls, which have not been surveyed. For the remaining two tahsíls the data are incomplete, no distinction having been made between the number of holdings in irrigated and dry crop areas. The following remarks must, therefore, be received with caution.

In Sanjáwi the total number of holdings recorded at the settlement was 2,854, and the area of irrigable land, including gardens, was 7,396 acres, which would give a little over 2½ acres as the size of a holding. Besides this, there were 2,285 acres of cultivable *sailába* and dry crop land which would add about another acre to each holding.

In the Bori tahsíl the total number of holdings was 8,535 and the area of *ábi* (including garden), *sailába*,

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khushkába and culturable lands, 95,400 acres, which allows a little over 11 acres as the area of a holding.

In connection with these statements it is to be remembered that survey operations in the Sanjáwi tahsíl were confined to irrigated villages including small patches of dry crop area within the limits of such villages, and that irrigable land in both the tahsíls is classified according to its capacity for yielding crops. In Sanjáwi the minimum capacity is one crop in six years, while in the Bori tahsíl it goes down to one crop in twenty-four years.

Headmen or *maliks* and their remuneration.

The headman or *malik*, as he is locally called, has always been a prominent figure both in the village and in the tribal organisation, and his duties have consisted in arbitrating between disputants, in keeping order, and in collecting the state demand where revenue was imposed. In areas remote from headquarters, he still plays a part of no little importance. The appointment and removal of the *maliks* in tahsíls for which a record of rights has been prepared, are regulated by rules issued by the Revenue Commissioner in January 1899, and the Political Agent is empowered to appoint, punish, suspend or remove a *malik*, subject to appeal to the Revenue Commissioner; but the number fixed by the Revenue Commissioner for any *mahál* cannot be altered without his sanction. These rules are taken as a guide in other tahsíls also. The *maliks* are generally men who are proprietors of large areas in a *mahál*, and who command respect from their fellow-tribesmen. Their duties are primarily to assist in the collection of the revenue, to keep order and to inform the tahsíl officials of the occurrence of any serious crime or of other important matters. A certain number are employed in the Levy service. The *maliks* are paid *lambardári* allowance (*haq-i-malikána*) at a uniform rate of 5 per cent on the gross land revenue, including grazing tax and tax on water mills, collected through them. In the Bori tahsíl, however, no *malikána* is paid on the revenue realised from water mills.

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System of remissions and suspensions.

The revenue being levied in kind, the results of indifferent seasons or calamities adjust themselves automatically, and the necessity for suspension or remission of revenue seldom arises. Where the revenue is paid in cash, the Political Agent may direct that the whole or part of the land revenue falling due in an estate be suspended in cases of severe and continued calamity. All orders thus issued must be at once reported for the sanction of the Revenue Commissioner, who may cancel or modify them. Similarly proposals for remission of land revenue have to be reported to the Revenue Commissioner, who may sanction remissions up to a maximum of Rs. 250. Cases involving larger sums require the sanction of the Local Government.

Remission of grazing tax and of the tax on water mills may also be granted when there is unusual mortality due to a drought and scarcity of fodder, or when a mill has, owing to no fault on the part of the proprietor, not been in working order.

Exemption from revenue of improvements.

In connection with the settlement of the Sanjáwi tahsíl the Government of India ruled (1901) that cultivation from all new sources of irrigation in estates subject to the fixed assessment should not be liable to any additional revenue during the term of the settlement. In areas which are not subject to a fixed cash assessment the rules are (*a*) that when waste land is reclaimed with the aid of a *takávi* loan and is brought under cultivation, no revenue may be assessed on it until the expiration of three years reckoned from the beginning of the harvest first reaped after the reclamation was effected. If no *takávi* loan was obtained, the period of exemption may be extended to four years; (*b*) when *khushkába* land has been improved by irrigation with the aid of a *takávi* loan, the period of exemption is four years; in the case of waste land which has been improved by irrigation or an improvement either of *khushkába* or waste, which has been made without the aid of a loan, the period of exemption may be extended to five years; (*c*) new water mills, constructed with or without the aid of Government loans are,

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on sufficient reasons being shown, exempted from taxation for two or three years as the case may be. In special cases these periods may be further prolonged.

Waste land.

No final decision has yet been arrived at in regard to waste land. In the draft of the proposed Land Revenue Regulation for Baluchistán, which is still (1906) under consideration, a provision has been included giving Government the presumptive right to all lands comprised in hills or forests, and to unclaimed or unoccupied land.

In 1896, it was pointed out by Lieutenant-Colonel Gaisford, Political Agent, Thal Chotiáli, that there was a considerable amount of culturable waste land in the District, and he suggested that the owners might be called upon to bring the land under cultivation within a fixed period, failing which, it should be ruled, that the land shall be considered to be at the disposal of Government. Enquiries made in 1899 elicited the fact that there were over 50 plots of such land in the Duki, Sanjáwi and Bárkhán tahsíls, the greater portion lying in the first named tahsíl. Agreements were obtained the same year in nearly all these cases from the owners of the soil, by which they undertook to forfeit all claims, should they fail to bring the land under cultivation in the next three years. It was, however, estimated in the same year that about 2,600 acres of waste land had, since the question was mooted, been brought under cultivation and a tendency on the part of the owners, to bring more land under cultivation, was observed.

Under the agreement made with the Leghári sardárs in 1897, which has already been referred to, any land outside the limits of the Náhar villages and settlements in Leghári-Bárkhán, which remains uncultivated at the end of ten years,* will be at the disposal of Government.

Restrictions against transfer of land to non-agriculturists.

Under the provisions of the Baluchistán Civil Justice Law and Regulation, agricultural land cannot be sold in execution of a decree without the sanction of the Local

* This was extended by seven years in April 1907.

Government, and it is usually made a condition of the sale that the land shall not be sold to non-agriculturists. In the draft Land Revenue Regulation, a provision has been made that no agricultural right in land shall be alienated by transfer, sale, gift, mortgage or other private contract to any person who is not entered in a record of rights, as a member of the proprietary body of an estate, or, if the transferee is resident in a part of Baluchistán where no such record of rights has been prepared, unless the transferee is a Pathán or Baloch landowner, and unless he is approved by the headmen of the village where the land is situated. This draft has not yet (1906) become law, but its provisions are taken as a guide, and land cannot be sold and mortgaged with possession to aliens, without the permission of the District officer.

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Government Land.

In the course of the settlement (1900-01) it was ascertained that 340a.-0r.-26p. of unculturable land occupied by roads, etc., belonged to Government. Besides these, Government owned 254a.-2r.-12p. of land, of which 199a.-1r.-27p. in Inzarghat have since been sold for Rs. 727-5-4 to Ibráhím, Khalíl Táran of Pishín. The remainder lies round the fort at Sanjáwi, and a portion of it was cultivated for some years, but the military authorities have decided that it should on no account be cultivated in future.

In Bori the total area of Government land recorded in the settlement papers (1905) was 647a.-0r.-9p. comprising 40a.-2r.-38p. *ábi*, 1a.-0r.-6p. *sailába*, 45a.-2r.-32p. culturable, and 559a.-2r.-13p. unculturable. The greater portion of the land is under Government buildings and roads. The *ábi* area includes 29a.-0r.-19p. attached to the Arbasín *viála* and 11a.-2r.-18p. to the Láhor village. The lands comprised in the Civil and Military stations were purchased in 1886 for Rs. 35,302-10-7 including Rs. 1,192 paid for houses and Rs. 1,629 for trees. The share of the cost contributed by the Civil Department was Rs. 1,775-11-9, the balance (Rs. 33,526-14-10) being paid from Military funds. One-twentieth of the Pathán Kot spring water was purchased for Rs. 6,000 in

LAND REVENUE.

1901, and brought in pipes for the use of the military station and bazar.

The revenue realised from the lands within the limits of the Loralai bazar was at first credited to the Town Fund, but it was decided in 1898 that from 1st April of that year half of the income derived from land under crops, other than that under gardens, should be credited to Provincial Revenues.

In other tahsíls no regular survey has been made, but the reports received from the tahsíldárs show that at Duki Government owns about 304 acres, of which about 20 acres are under cultivation; and one-ninth of the entire Duki stream has also been used in the Duki civil station since 1884.

At Músa Khél the total area representing Government property is about 5½ acres, which includes about 3½ acres under gardens, for which water is also obtained from the *zamindárs* free of cost. At Bárkhán, Government has about 49 acres of land which includes about 3 acres under gardens and one-tenth of the water from the Han spring is also used.

It is not known whether any compensation was ever paid for land and water at Duki, Músa Khél, Bárkhán and Sanjáwi.

Water mills.

The number of water mills (1905) in each tahsíl is shown in the following statement:—

Tahsil.		Revenue free.	Revenue paying.
Duki	...	2	20
Sanjáwi	...	3	23
Bori	...	1½	40½
Músa Khél	...	1	...
Total	...	7½	83½

The water mills in the Sanjáwi sub-tahsíl are nearly all under a fixed cash assessment based on the average collections of the past five years, which was sanctioned for the term of the settlement. The revenue on mills in the Duki and Bori

tahsíls is generally assessed annually, the basis of assessment being one-sixth of the receipts.

LAND REVENUE.

The average annual assessment per water mill in 1904-05 amounted to Rs. 55 in the Duki tahsíl, Rs. 12 in the Sanjáwi and Rs. 16 in the Bori tahsíl.

Grazing tax.

Grazing tax was known in Afghánistán as *sar rama*, and the rates levied by the Afgháns in Pishín and Shorarúd were 1 rupee for a camel; 8 annas for a cow; 6 annas for a donkey; and 1 anna for a sheep or goat. This system of taxation does not appear to have been extended to more remote districts, and no definite account of the tax levied in Thal and Duki is traceable. As already mentioned the flock-owners in Sanjáwi, Bori and Bárkhán occasionally gave a sheep from each flock as a tax, (*ghal*), to the headmen, but there was no systematic method of taxing the flocks.

Towards the close of 1887, when numerous families of Kharots, Násars and other Ghilzais entered Thal with their camels, and caused considerable trouble to the administration, a question arose as to taxing their animals, and as a tentative measure the imposition of a tax was sanctioned by the Agent to the Governor-General. The receipts during that year amounted to over Rs. 930. In 1890 the tax at the following rates was introduced throughout the Agency, but it was not imposed in the Músa Khél tahsíl until 1891-2:—

	Rs.	a.	p.
Male camel	0	8	0
Female camel	1	0	0
Buffalo	0	8	0
Cattle	0	6	0
Donkey	0	4	0
Sheep and goat	0	1	0

Animals which are exempt include horses, *bona fide* plough bullocks, and milch cows kept by villagers for their private use.

LAND REVENUE.

Collections are carried out once a year by the tahsíl establishment with the aid of the headmen, either by actual enumeration of the cattle (*mál shumári*) or by temporary contracts (*ijáras*). In the case of nomads, the enumeration system is generally adopted. Headmen who assist are paid 5 per cent on the collections as their remuneration. The income derived from the grazing tax collected throughout the District during the year 1904-5 was Rs. 30,779 of which Rs. 22,733 were paid by settled inhabitants, and Rs. 8,046 by nomads. In this year the grazing tax represented over 18 per cent of the total revenue collections of the District. A considerable number of Músa Khéls still depend largely on their flocks, and in this tahsíl the grazing tax represented 40 per cent of the total revenue collections.

Grazing tax is credited in the District accounts under Land Revenue, and the average collections of the quinquennial period, ending with the 31st of March 1905, show that the sum obtained from it amounted to 15 per cent of the total land revenue receipts, of which about 12 per cent was contributed by the settled inhabitants and over 3 per cent by nomads.

Powindáhs.

An arrangement was introduced from April 1897 by mutual consent, between the Punjab Government and the Baluchistán administration, whereby the grazing tax on the Powindáhs proceeding from Afghánistán to the Punjab, through the Zao, Chúhar Khél Dahána and Vihowa, should be levied only once, in Zhob, at Zhob rates, and the proceeds after deducting the cost of the collecting establishment shared between the Punjab and Zhob in the proportions of three-fifths and two-fifths respectively. This arrangement remained in force up to March 1902, was subsequently modified, and is mentioned in the *Zhob District Gazetteer*.

As regards the Powindáhs entering the Déra Gházi Khán District through Thal Chotiáli (portions of which now form part of the Loralai District), the question of apportionment of the receipts between the Punjab and Baluchistán was

discussed in 1902. The Agent to the Governor-General did not approve of an arrangement similar to that made in the case of Powindáhs using the Zao, Chúhar Khél Dahána and Vihowa passes, and the Punjab Government ultimately directed that no *tirni* should be levied in future on camels, whose owners had previously paid a similar tax in Baluchistán.

LAND REVENUE

On the creation of the North-West Frontier Province, the question of apportionment of the revenue derived from the northern passes remained under consideration, and as a collateral result the rates of *tirni* on all Powindáhs proceeding viâ the Vihowa and Khar passes, and the Zao and Chúhar Khél Dahána were enhanced* (1905) at the instance of the Punjab Government. The question of the division of dues (between the Punjab and Baluchistán administration) is still (1906) under the consideration of the Punjab Government.

Revenue-free grants, grain and cash allowances.

A detailed list of revenue-free grants, grain and cash allowances, sanctioned from time to time since the occupation of the District, is given in table XIX, Volume B. The aggregate value of the grants in January 1906 was Rs. 11,816-15-10, which represented about 7 per cent of the total land revenue realised in 1904-05. The following statement shows the distribution of the *muáfis* by tahsíls :—

	Land revenue.	Grazing tax.	Water mills.	Grain allowances.	Cash allowances.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
(1) Duki Tahsíl ...	988 5 9	0 15 0	3 5 4	...	2,625 0 0	3,617 10 1
(2) Bárkhán " ...	641 15 9	...	...	3,701 2 4	1,695 0 0	6,038 2 1
(3) Músa Khél " ...	1,060 6 3	120 0 0	...	400 0 0	...	1,580 6 3
(4) Bori " ...	128 13 2	38 12 0	31 0 0	...	...	198 9 2
(5) Sanjáwi Sub-tahsíl...	219 14 3	...	30 1 4	...	132 4 8	382 4 3
Total ...	3,039 7 2	159 11 0	64 6 8	4,101 2 4	4,452 4 8	11,816 15 10

*1. Male camels from as. 8 to as. 12 per head.

2. Female camels from R. 1 to R. 1-8 per head

3. Sheep and goats from an. 1 to as. 2 per head.

4. Cows and bullocks, as. 6, old rates.

5. Donkeys, as. 4, old rates.

LAND REVENUE.

Most of these *muáfis* are for the lifetime of the grantees, and some for shorter terms, all however are subject to the usual conditions of future good service and loyalty to Government. The grants mentioned below deserve special notice :—

Assignments and allowances of the Lúni *Sardár*.

After the occupation of the District a grain allowance of 1,000 maunds was sanctioned for *Sardár* Samundar Khán, Lúni, in 1884, and it was confirmed in 1890-1. In 1887, the Government land revenue on 1,053a.-0r.-15p. belonging to the *Sardár*, the annual assessment of which is estimated at Rs. 385-2-3, was remitted. On his death in 1893, these grants were continued to his son K. B. Sardár Nawáb Khán, Lúni (the present chief), and a grain allowance of 50 maunds was also sanctioned for Mír Khán, brother of Nawáb Khán. The grain allowances were converted into an annual cash payment of Rs. 2,625 in April 1900. The following extract from a report submitted in 1889 by Lieutenant (now Major) C. Archer, then Assistant Political Agent, indicates the privileges enjoyed by the *Sardár* previous to British occupation, in lieu of which these grants were made :—

" There is, moreover, no doubt that the *Sardár's* financial position has suffered considerably from our occupation. The Lúnis though sunk from their original estate were still, on our arrival, a powerful and warlike tribe and well able to hold their own in the freebooting line, against their neighbours, with the possible exception of Marris. Our coming has put an end to this source of revenue, which though precarious was highly prized, while it has greatly diminished the *Sardár's* receipts on account of *buzi*, the contribution per flock which he used to receive from his people. On the other hand the *Sardár's* expenses have rather increased than diminished with the peace which has made the claims of hospitality heavier than before, and with the growth of his three sons one of whom is a young man of 25 years old."

The income to the *Sardár* from the *huzi* contributions and other voluntary payments from cultivators, etc., was estimated by Mr. Archer at Rs. 200. In addition to this the *Sardár* used to receive some small share by way of *sardári* out of the pay of 12 Lúni sowars who were stationed at Lákhi, a practice which was considered objectionable and was stopped on the grant of the allowance. LAND REVENUE.

Land revenue *muáfi* to the Saiads of Púi in the Sanjáwi Sub-tahsíl.

When the Sanjáwi tahsíl was being assessed to revenue, in 1887, the Saiads of Púi represented that their lands at Púi and Wani were exempt from revenue in the time of the Afghán rulers and prayed for a similar concession at the hands of the British Government. Wani was not mentioned in the *sanads* produced by the Saiads, but the lands in Púi were exempted from revenue in 1888, as a temporary measure until a final settlement of the land was made, when the claims were to be reconsidered.

When a summary cash assessment was introduced in the tahsíl in 1895, the *muáfi* question again came up, and an examination of the *sanads* purporting to have been granted by the Afghán rulers, on which the Saiads based their claims for *muáfi*, showed them to be doubtful documents. But as the *muáfis* were old and of no great extent, they were continued in 1897, in full to the holders then living for their lives and at half assessment to their successors, but subject to non-alienation to any one not a Saiad and the usual conditions of loyalty and good behaviour. During the settlement survey of the tahsíl in 1899 the total area comprised in this *muáfi* was found to be 107a.-1r.-20p. including 86a.-2r.-23p. of *ábi* and 7a.-0r.-10p. of culturable lands. When passing orders on the *muáfi* list prepared by the Settlement Department, the Hon'ble the Agent to the Governor-General remarked that "in respect of this *muáfi*, these Saiads are not entitled to anything by *sanad*, and considering their conduct in the production of these forged documents, the Agent to the Governor-General is of opinion that they are not deserving of any further consideration."

LAND REVENUE.

As, however, the *muáfi* had already been sanctioned, it was re-affirmed on the conditions that the holders of these *muáfis* (on the 29th March 1897) should enjoy them in full for their lifetime. That on the death of each holder the *muáfi* should be continued to his successor for his life only, at half assessment; and on his death the *muáfi* should lapse to Government and be resumed without further orders. The present value of these *muáfis* is Rs. 190-9-3.

The Mazaráni Khétrán *muáfi*.

The ruling family of the Khétrán tribe was, for several generations before the British occupation, the Mazaráni family. The Khétrán valley was occupied in 1887 at the request and with the consent of the Sardár, Baloch Khán, and the leading men of the various sections.

Up till then the Khétrán *Sardár* enjoyed certain revenue from his tribesmen and others which brought him about Rs. 2,000 per annum as detailed below:—

	Rs.
(*a*) *Ghal*, a herd tax—One sheep or goat levied by the *Sardár* from every flock.	1,200
(*b*) *Sung* or octroi tax which consisted of (1) the tax levied at rates varying from an. 1 per sheep or goat to as. 8 per camel, taken away for sale; and (2) transit dues on the export and import trade which varied from as. 6 on a donkey load to Rs. 3 per camel load and a tax of Rs. 5 on each *káfila* ...	350
(*c*) *Sihh* or fines in adultery cases ...	150
(*d*) Taxes on Hindus in the Khétrán country which comprised an annual poll tax and fees for marriages, etc. (some of the objectionable items were excluded from the estimate) ...	300

The justice of the *sihh* tax was not admitted, and the *Sardár's* income was estimated at Rs. 1,850 per annum.

LAND REVENUE.

These taxes were abolished in July 1888, and a grant of Rs. 1,800 per annum or Rs. 150 per mensem was sanctioned for the family in consideration of the loss resulting from their abolition. The distribution as sanctioned was—

		Rs.
(1) Mehráb Khán with other descendants of Bábal Khán and Mír Háji Khán	...	75
(2) Descendants of Alu Khán ...	...	35
(3) Descendants of Said Khán ...	...	20
(4) Descendants of Akhtiár Khán	...	20

The grants were sanctioned subject to the condition that on the death of each of the holders, further orders of the Government should be applied for before his share was re-distributed or allotted. The allowances at present drawn aggregate Rs. 141-4-0 per mensem, the details of which will be found in table XIX, Volume B.

Grain allowances.

Grain allowances were sanctioned for the family from time to time, till in 1892 they aggregated 1,450 maunds wheat, 400 maunds *judri* and 400 maunds *bhúsa*. The distribution was—

		Wheat.	*Juári.*	*Bhúsa.*
(a) Sardár Mehráb Khán	Sons of Baloch Khán.	800	400	400
(b) Bakhtiár Khán ...		50	...	...
(c) Misri Khán ...		100*	...	...
(d) Sohráb Khán ...		50	...	...
(e) Sobdár Khán, Azád Khán, and their mother Murád Khátún at 50 maunds each...		150	...	...
(f) Kádir Bakhsh, son of Said Khán, the uncle of Baloch Khán ...		300	...	...

Bakhtiár Khán's allowance of 50 maunds was increased during the same year by 20 maunds of wheat, 30 maunds of *juári* and 30 maunds of *bhúsa*. This additional allowance was made in consideration of his good conduct and loyalty shown after the death of his father, when his proposed

* This included 50 maunds which was to be drawn as long as the grantee was in Levy Service at Rakhni.

LAND REVENUE.

appointment as *Sardár* by the tribesmen was over-ruled in favour of the eldest son Mehráb Khán, for whose supersession no sufficient cause was seen. Misri Khán went away to Kábul in 1899, and his personal allowance of 50 maunds of grain was stopped. During his absence, the allowance of 50 maunds for the guest house (*mehmán khána*) at Rakhni was enjoyed by his brother Sohráb Khán, and restored to Misri Khán on his return to Bárkhán in 1905. Misri Khán's personal allowance of 50 maunds of grain was also restored to him in 1906.

The allowance of 300 maunds drawn by Kádir Bakhsh was continued, on his death in 1893, to his son Imám Bakhsh, while the share (50 maunds) of Musammát Murád Khátún, the wife of Sardár Baloch Khán, was resumed on the grantee's death in April 1904. The total allowances, therefore, aggregate 1,420 maunds wheat, 430 maunds *juári* and 430 maunds* *bhúsa* valued at Rs. 3,663-10-4. These grants were sanctioned for the lifetime of the grantees, subject to the usual conditions of good behaviour and loyalty to the British Government.

Land revenue *muáfis*.

No Government revenue has been levied since the British occupation, on Mehráb Khán's hereditary share of the lands at Mír Háji Kot, nor on the hereditary shares of his brothers Bakhtiár Khán and Misri Khán which were purchased by him, nor on the hereditary lands held by Mehráb Khan's other brothers. Formal sanction to these revenue assignments was accorded in 1893, when the tribal lands at Bagháo, which were the property of Mehráb Khán by virtue of his position as tribal *Sardár*, were also exempted from revenue as well as a small portion of land purchased by the *Sardár* from his mother. The area of the revenue-free holdings measures 725a.-3r.-24p. belonging to Mehráb Khán and 91a.-0r.-35p. belonging to Sobdár Khán, and

* In addition to this Imám Bakhsh receives 150 maunds of *bhúsa* sanctioned in 1900.

Azád Khán, the aggregate value being Rs. 341. The grants were sanctioned for the lifetime of the recipients on the usual conditions of good behaviour and loyalty.

LAND REVENUE.

Land revenue *muáfi* to Jahán Khán Chacha of Bárkhán tahsíl.

Jahán Khán Chacha enjoys a *muáfi* on 62a.-0r.-20p. of land valued at Rs. 70-10-5 which was sanctioned in March 1891. This concession was granted in consideration of the tax called *ghal* on sheep and goats, and the fines in cases of adultery which the ancestors of the grantee used to levy as their *sardári* from the Dhara clan of the Khétráns, and which brought them about Rs. 600 per annum until they were stopped on the British occupation.

MISCELLANEOUS REVENUES.

Salt.

The alien population in the bazars generally use Punjab rock salt which pays duty at the mines. In parts of Músa Khél, rock salt is imported from the Kálabágh mines, while in the remaining portions of the District the Zhob and Pishín earth salt, which is not taxed, is consumed.

Khár.

Crude potash is manufactured in the Bárkhán, Músa Khél and Duki tahsíls by the women of the country, chiefly for local consumption; and in the last named tahsíl by the Kharots and Násars; but it is taxed only in Bárkhán at the rate of one-sixth of the produce.

Opium.

The import, possession and transport of opium and poppy heads is governed by rules issued by the Local Government in 1898, under the Opium Act. The cultivation of poppy is prohibited, and the supply required for local consumption is imported from Amritsar and Rájanpur in the Punjab under pass, by licensed vendors, who make their own arrangements for procuring it. Such imports pay no duty.

The exclusive right of retailing opium, preparations of opium other than smoking preparations, and poppy heads for ordinary purposes, is disposed of annually by auction by the Political Agent, subject to the sanction of the Revenue Commissioner, the number of shops at which the sale is permitted having been previously fixed. In 1904-5 the number of such shops was 17. Medical practitioners and

MISCELLANEOUS REVENUES.

druggists can obtain licenses to sell opium in forms other than smoking preparations, and poppy heads for medicinal purposes only, on payment of a fee of Rs. 10 per annum. Smoking preparations may not be bought or sold, and must be made up by the smoker from opium in his lawful possession, and then only to the extent of one *tola* at a time. The ordinary limits of private possession are three *tolas* of opium and its preparations (other than smoking preparations); and one seer of poppy heads. In 1904-5 the consumption of opium amounted to about 30 seers and of poppy heads to 2 seers. The revenue realised was Rs. 500.

Intoxicating drugs.

Besides opium, the intoxicating or hemp drugs, which are controlled by regulations, are *gánja*, *charas* and *bhang*. Prior to the time of the Hemp Drugs Commission, the only restriction imposed was to farm out, by annual auction, the monopoly of the vend of these drugs at shops sanctioned by the Political Agent. The local cultivation of the hemp plant was stopped in 1896 throughout the Agency, and the contracts for retail and wholesale vend were separated in 1902, and at the present time (1905) the number of licensed shops in the District is 17. *Bhang* is generally imported from Bhág in Kalát territory, and *charas* from Rájanpur and Amritsar in the Punjab. In February 1902, revised rules were issued, under which the farmers are permitted to import the drugs from other British Provinces in bond; and these, when so imported, are stored in a bonded warehouse established at Sibi, where small fees are levied and issues to licensed vendors are taxed. The ordinary rates* of duty on drugs imported from British territory are Rs. 4 per seer on *gánja*, Rs. 80 per maund on *charas*, and Rs. 4 per maund on *bhang*; but imports from foreign territory are taxed at double rates. The contracts for the right to sell the drugs, both retail and wholesale, are sold annually by auction by the Political Agent, subject to the sanction of the Revenue Commissioner, who also fixes the number of shops. The

* With effect from 1st April 1907 the duty on *charas* has been doubled.

MISCELLANEOUS REVENUES.

ordinary limit of private possession is one seer in the case of *bhang*, and five *tolas* in the case of *gánja* and *charas*. The consumption in 1904-5 was, *charas* about 3 maunds 35 seers, and *bhang* 2 maunds 37 seers, while no *gánja* was sold; and the revenue amounted to Rs. 1,425.

Country spirits and rum.

The manufacture and vend of country spirits are combined under a monopoly system. The right to manufacture and sell country liquors, including rum, is farmed annually by auction, the number of shops at which liquor and rum are to be sold by the farmer or his agent being fixed previously. The number of such shops in 1905 was 17. More than one seer of country liquor cannot be sold to any one person at a time, except with the permission, in writing, of an Excise Officer authorised in this behalf by the Political Agent. No minimum price is imposed nor has the liquor to be of any specified strength. The revenue in 1 904-5 was Rs. 3,225.

Distillation of country liquors.

There is one distillery at Loralai and the building belongs to a private individual. The liquor is manufactured by the contractor who obtains the annual farm, and is supplied to the various shops in the District, and occasionally sent to Kohlu in Sibi and Hindubágh in the Zhob District. The materials ordinarily used in the distilling of liquor are molasses (*gur*) and *kikar* or *babúl* bark. When preparing for fermentation, about 2 maunds of *gur* are mixed with 10 seers of bark and 4 maunds of water, the wash being ready for use in about 12 days in summer and in about 16 days in winter. Liquor of low strength, obtained from the first distillation of 6 hours, is called *kacha* or *chirakh*. This *chirakh*, after a second distillation lasting for about 12 hours, is known as *kora-do-átsha*. Flavoured liquors are prepared by the addition of spices such as *iláchi* (cardamom), *turanj* (citron), *guláb* (rose leaves), *saunf* (aniseed), *sund* (dry ginger) and *gázar* or carrot seeds. The selling price varies from R. 1 to R. 1-4 per quart bottle according to the quality of the liquor.

MISCELLANEOUS REVENUES.

Foreign liquors.

Foreign liquors, which term includes liquors other than rum, manufactured in other parts of India and imported into the District, are sold under retail licenses, which are granted by the Political Agent on payment of fixed fees. These amount to Rs. 150 per annum for ordinary retail licenses. There are also dâk bungalow licenses, for which small fees are charged. The most important conditions of retail licenses are that no quantity of liquor greater than two imperial gallons, or twelve quart bottles, or less than one bottle, shall be sold to any one person at one time, and that no spirituous liquor, except spirits of wine and methylated spirit, shall be sold for less than R. 1-8-0 a bottle. The latter provision is mainly intended to safeguard the revenue derived from country spirits. During 1904-5, three retail licenses were issued, and the fees amounted to Rs. 164.

Methylated spirit.

The import, possession and sale of methylated spirit is controlled by rules* issued by the Revenue Commissioner in December 1900, and no fees are charged for licenses. In 1904-5 there was only one such license in Loralai.

Consumers, consumption and aggregate value.

As a general rule the indigenous population has neither the means nor the inclination to consume excisable articles, and the consumption is chiefly confined to the Indian population at Loralai and other parts in the District. A few *zamíndárs* of low position and beggars in the Duki tahsil also use drugs to some extent.

The trans-border Afghâns found in the Bori tahsíl use *charas* and opium.

District table XX, Volume B, contains details of the consumption of, and revenue from, the principal articles for 1903-4 and 1904-5, the figures for the previous years not being available. In 1904-5 the consumption per thousand of the entire population was—7 *chittacks* of opium; 2 seers 4 *chittacks* of *charás*; and 1¾ seers of *bhang*. The revenue in the year 1903-4 amounted to Rs. 5,195 and in 1904-5 to Rs. 5,314.

Stamps.

The Indian Stamps and Court Fees Acts, and the rules made under them, are in force in the District. Licenses for

* Baluchistán Excise Manual (1902), Chapter III.

MISCELLANEOUS REVENUES.

the sale of Judicial and non-Judicial stamps are issued by the Political Agent to petition-writers and others, who obtain their supply from the sub-treasuries in the District and are paid commission at rates varying from 12½ annas to Rs. 6¼ per cent on different kinds of stamps. In March 1905 there were 14 licensed stamp-vendors in the District including *ex-officio* vendors. In 1904-5 the receipts amounted to Rs. 7,169-5-0.

Income tax.

The Income Tax Act (II of 1886) has not yet been applied to Baluchistán, but the tax is levied on the salaries of Government servants, by deduction from their pay bills, on the salary of officers paid from local funds, and on rewards paid to military officers for passing examinations in oriental languages. The receipts in 1904-5 amounted to Rs. 1,149.

LOCAL FUNDS.

The only local fund in the District is the Loralai Town Fund, which was formed into an Excluded Local Fund in May 1891, and of which the Duki-Sanjáwi and the Bárkhán-Músa Khél Bazar Funds are branches. It is governed by rules issued by the Government of India in February 1900, as modified in April 1902. The Political Agent is the administrator and controlling officer of the fund, and the Revenue Commissioner has the powers of a Local Government. The Extra Assistant Commissioners in charge of sub-divisions exercise the powers of administrators in respect of the Duki-Sanjáwi and Bárkhán-Músa Khél Bazar Funds. The following are the principal sources of revenue :—

(*a*) Octroi* which is levied at Loralai and Mékhtar according to a schedule of rates sanctioned by the Local Government; (*b*) public gardens and lands, and rents of houses; (*c*) fees from educational institutions, fines under the Police Act, and (*d*) conservancy cess.

Ground rent and public gardens constitute the sources of income of the Duki-Sanjáwi and the Bárkhán-Músa Khél

*NOTE.—The schedule of rates and the rules which regulate the tax are embodied in a collection of printed papers entitled *The system of levying and collecting octroi in Baluchistán*, 1900. The rates were slightly modified subsequently.

LOCAL FUNDS.

Bazar Funds. Conservancy tax is also levied at Duki, Sanjáwi, Smállan and Bárkhán.

The right to collect octroi duty at Loralai and Mékhtar is farmed out annually by auction and one-third of the octroi receipts of the former are paid to the military authorities for the conservancy arrangements of the station. The rates of conservancy tax at Loralai are annas 8 per house, annas 12 per shop, and annas 4 per store house. The rates levied on houses at Duki and Sanjáwi vary from annas 4 to annas 6, while the rates levied at those places, and at Smállan, per shop, vary from annas 7 to Rs. 2.

The fund is expended on objects of public utility in the places from which the revenue is raised. The chief items of expenditure are those on establishment for revenue collection, for conservancy, *chaukídári* establishment, the maintenance of gardens and arboriculture, education, water-supply and the contribution to Provincial Revenues for Police maintained for the Loralai bazar. Diet to pauper patients and charges of their bedding, etc., at Duki and Sanjáwi are also met from the Duki-Sanjáwi Bazar Fund. The average annual receipts for the five years ending with 31st March 1902 of the Loralai Town Fund amounted to Rs. 10,409, and the expenditure to Rs. 10,032. The revenue and expenditure of each fund in 1904-5 and the closing balance are given in the margin. In this year octroi contributed 66 per cent of the total revenue of the Loralai Town Fund and the expenditure on public instruction was 9 per cent. Details of both income and expenditure are given in table XXI, Volume B.

	Revenue.	Expenditure.	Closing balance.
	Rs.	Rs.	Rs.
Loralai Town Fund ...	13,158	11,734	4,194
Duki-Sanjáwi Bazar Fund	996	*1,132	699
Bárkhán-Músa Khél Bazar Fund ...	655	396	906

* NOTE.—The extra expenditure was met from the balance of previous years.

PUBLIC WORKS.

Important civil works in the District are carried out by the officers of the Military Works Services. The Assistant Commanding Royal Engineer of the Loralai Sub-district, who has his headquarters at Loralai, exercises general control, and has under him two Garrison Engineers with headquarters at Fort Sandeman and Loralai. The civil works in the Músa Khél tahsíl are under the Garrison Engineer, Fort Sandeman, while those in other tahsíls of the District are under the Garrison Engineer, Loralai, who has a Sub-divisional Officer at his headquarters. A Sub-overseer, stationed at Duki, has subordinate charge of the works in the Duki and Bárkhán tahsíls, and the Sub-divisional Officer of the Dahána road, in the Zhob District, is in immediate charge of the civil works in the Músa Khél tahsíl.

Civil works which cost Rs. 1,000 and over are provided for in the Public Works Budget, and are generally carried out by the Military Works Services. Works of a petty nature and those required in places remote from headquarters are executed under the orders of the Political Agent. Civil works of this nature in the Sanjáwi, Duki and Bárkhán tahsíls are supervised by a Sub-overseer who has his headquarters at Duki, and a *mistri* stationed at Loralai supervises similar works in the Bori and Músa Khél tahsíls, and also the municipal works at Loralai. Both these officials are paid from Provincial Revenues and the *mistri* is also given an allowance from Local Funds. A special Irrigation Engineer, with his headquarters at Quetta, advises the Local Government in all irrigation matters.

Important works.

Reference will be found in the section on **Means of Communication**, to the principal roads in the District; and the Loralai water-supply scheme is mentioned in the special article on Loralai in Chapter IV. Besides the buildings in the Loralai Cantonment the principal buildings in the District are: the tahsíl and *thána* at Músa Khél, Loralai, Duki, and Bárkhán (completed in 1884—94); the Sanjáwi military post, now used as tahsíl buildings and built in

PUBLIC WORKS.

1888-9; the Post and Telegraph office (1885), the Political Agent's house, Dispensary and Hospital Assistant's quarters (1888), quarters for the Political Agent's clerks (1891-2), the Extra Assistant Commissioner's house (1897), the Assistant Political Agent's house, and *jirga* hall (which also accommodates the Library) at Loralai; schools at Loralai and Duki: *Mehmán Khánas* at Músa Khél, Loralai and Duki; tahsíl officials' quarters (1899) at Músa Khél; cemetery (1884), Extra Assistant Commissioner's house (1895), Dispensary and Hospital Assistant's quarters (1900) at Duki and clerks' quarters (1904) at Bárkhán. A list of the dâk bungalows and rest-houses in different parts of the District is given in table XI, Volume B.

Levy posts.

Levy posts have been built at various places; the buildings being in charge of civil officers at Gidar Cháh, Mara Tangi, Zara, Mékhtar, Dab, Saradháka, Tor, Wahár, Duki, Gumbaz, Tak, Jehándún, Rarkan, Rakhni, Báladháka, Chacha, Toisar, Tangisar, Drug, Kot Khán Muhammad, Kingri and Gandéra. Those in charge of Military Works officers (Public Works Department) at Loralai are: sowars' lines, at Duki, Bagháo, Gháti Bridge, Hosri, Inzarghat, Chautér, Rázgai, Torshor, Dilkúna, Pazha, Chamálang, Sémbar, Kingri, Mithi Khui, Bárkhán, Rakhni and Vitákri.

ARMY.

The Vitákri valley was temporarily held by troops in 1879. About the commencement of 1883, troops were stationed at Dabar Kot in the Thal plateau, with a detachment of cavalry at Gumbaz. In 1884, the Dabar Kot troops were moved to Duki, which was also abandoned in 1886, when a cantonment was established in the Bori valley; the garrison of the latter place consisted of one regiment Native Cavalry, one regiment Native Infantry and one Mountain Battery, the battery being withdrawn in 1896. When the Pishín-Déra Gházi Khán road was under construction, detachments of troops were stationed (1886) at Rakhni, Rarkan, Kingri and Mékhtar, and for a short time (in 1887) at the Anambár gap for the protection of the working parties; they were

ARMY.

withdrawn in 1891. The Sanjáwi fort was also held by troops from 1885 to September 1890. The present (1906) garrison of the Loralai Cantonment consists of one regiment of Native Cavalry and one of Native Infantry. The Cavalry regiment supplies detachments at Gumbaz (established in 1890), Khán Muhammad Kot (1889), and Maratangi, in the Loralai District and Mír Ali Khél (1890) and Murgha Kibzai (1889) in Zhob. The Infantry regiment supplies detachments to Músa Khél (established in 1896) in the Loralai District, and at Hindubágh (1902), Kila Saifulla (1897) and Murgha Kibzai in Zhob. The detachment at Drug (1891) is supplied by the Infantry regiment at Fort Sandeman in the Zhob District.

The question of the withdrawal of the small detachments of troops at isolated places in the Zhob and Loralai Districts and the occupation of these posts by levies and police is under consideration (1906).

LEVIES.

Since 1878, as each tract of the country now included in the Loralai District was brought under protection or occupied, local levies were sanctioned for various passes, and telegraph lines, and for carrying the mails. On the creation of the Loralai Agency in October 1903, services aggregating Rs. 8,692-9-4 per mensem were transferred from the old Thal Chotiáli and Zhob Districts, the details of which are given below:—

	Cost per month. Rs.	a.	p.
I.—Thal Chotiáli District.			
(*a*) 15 Post Offices.			
(1) Harnai-Loralai letter post.			
(Rázgai, Sanjáwi and Inzarghat) ...	303	0	0
(2) Sanjáwi-Duki-Gumbaz line ...	211	8	0
(3) Rakhni-Bárkhán line	120	0	0
	634	8	0

LEVIES.

		Cost per month. Rs.	a.	p.
(b) 25 Political.				
(1) Duki *thána* ...	Duki Tahsíl.	769	0	0
(2) Duki mill ...		36	0	0
(3) Dabar Kot ...		125	0	0
(4) Kandi ...		107	0	0
(5) Ghátipul ...		76	0	0
(6) Pazha ...		152	0	0
(7) Gumbaz ...		87	0	0
(8) Hosri ...		136	0	0
(9) Chamálang ...		165	0	0
(10) Lákhi ...		100	0	0
		1,753	0	0
(11) Sanjáwi ...	Sanjáwi Tahsíl.	238	0	0
(12) Púi ...		154	0	0
(13) Rázgai ...		74	0	0
(14) Inzarghat ...		38	0	0
(15) Wani ...		36	0	0
(16) Choti ...		81	0	0
		621	0	0
(17) Bárkhán Tahsíl ...	Bárkhán Tahsíl.	228	0	0
(18) Bárkhán *thána* ...		183	0	0
(19) Háji Kot ...		142	0	0
(20) Náhar Kot ...		82	8	0
(21) Vitákri ...		167	8	0
(22) Rakhni ...		155	0	0
(23) Chacha Mat ...		131	8	0
(24) Kandéli ...		131	8	0
(25) Rarkan ...		116	0	0
(26) Mithi Khui ...		172	8	0
		1,509	0	0
	Total ...	4,518	8	0
II.—Zhob District.				
(a) 15 Post Offices.				
(1) Loralai-Hindubágh line ...		80	0	0
(2) Loralai-Fort Sandeman line ...		237	0	0
(3) Fort Sandeman to Músa Khél ...		185	0	0
(4) Loralai to Kingri		241	0	0
(5) Loralai to Músa Khél		40	0	0
		783	0	0

LEVIES.

	Cost per month.		
(*b*) 25 Political.	Rs.	a.	p.
(1) Telegraph service	160	0	0
(2) Zhob Kákars	130	0	0
(3) Frontier road levies	760	0	0
(4) Ghilzai service	382	8	0
(5) Mando Khél service	85	0	0
(6) Central and Upper Zhob levies ...	47	1	4
(7) Bori levies	686	0	0
(8) Músa Khél levies	619	0	0
(9) Drug levies	522	0	0
	3,391	9	4
Total ...	4,174	9	4

Since then minor additions have been made; in May 1904, the control of the levy post at Báladháka (Rs. 158-8-0) previously included in the Kohlu sub-tahsíl of Sibi was transferred to the Loralai District and the Kandi post (Rs.107 per mensem) situated on the Spíntangi-Sémbar-Thal road was transferred to the Sibi District. These transfers resulted in an increase of Rs. 51-8-0 to the allotment for levies of the Loralai District.

In September 1904, the parcel post service between Harnai and Loralai (Rs. 120 a month) was transferred from Sibi to the Loralai District.

In October 1904, the allowance of Rs. 70 per mensem drawn by Gul Sháh Khán, Ghilzai refugee, was transferred to the Quetta-Pishín District where the recipient resided. In November of the same year 8 sowars employed in connection with the letter post at Harnai and Tor Khán (costing Rs. 160 per mensem, and paid by the Sibi District) were brought under reduction owing to the inauguration of a tonga service. Pír Muhammad Khán Andar Ghilzai's allowance of Rs. 37-8-0 lapsed to Government on his death in 1905.

The total allotment for levy service in March 1905 stood at Rs. 8,916-9-4 per mensem, of which Rs. 1,697-8-0 were chargeable to "15 Post offices," and Rs. 7,219-1-4 to "25 Poli-

LEVIES. tical." The total strength of the levies on the 31st March 1905 was 381, consisting of 7 headmen and chiefs, 72 officers, 212 sowars, 62 footmen and 28 clerks, who are distributed in 54 posts. There were 59 levies in the Sanjáwi, 76 in the Duki, 102 in the Bori, 65 in the Músa Khél and 77 in the Bárkhán tahsíl, while 2 were sick or on leave. Details of distribution are shown in table XXII, Volume B. The revision and increase of the levies, at an additional monthly cost of Rs. 853 is now (1906) under consideration, with a view to relieving, by local levies, small military detachments at outposts in the District. These proposals include an addition of 1 jamadár, 2 duffadárs, 19 sowars, 33 footmen and 2 vernacular clerks.

The levies are now employed, not only in guarding passes and roads, but in the investigation and detection of crime in places other than the Loralai civil and military station and the tahsíl headquarters. The principles of the Levy system which were laid down by the Committee which assembled at Quetta in 1883, under the presidency of Sir Robert Sandeman, are still observed. These principles were: (1) that all persons drawing pay, whether chiefs or others, who were not pensioners, must render an equivalent in service; (2) that levies should be local, and tribal responsibility enforced; (3) that the chiefs nominating, and the men nominated, should, as a rule, belong to the immediate neighbourhood of the post in which they were employed.

Under these principles, service is given to chiefs or headmen in localities where they have influence, and they can nominate their own men, subject to confirmation by the Political Agent or by the officer in charge of a sub-division. A nominee of a chief or headman may be rejected on the score of physical unfitness, bad character, or other sufficient cause. The men bring their own weapons of some sort, and the sowars their own mount, the latter being subject to approval. When it is remembered that the levies execute the

duties which are ordinarily allotted to police in India, and maintain peace and order in all the outlying posts of the District, the importance of judicious selections to fill vacancies in the District Levy service will be obvious. LEVIES.

On the creation of the agency in October 1903, the Loralai and Músa Khél police *thánas* were transferred to the District from Zhob, and the Bárkhán, Duki and Sanjáwi *thánas* from the old Thal Chotiáli District. The total strength of the police on the 31st of March 1905 was 134, and included 1 inspector, 5 deputy inspectors, 21 sergeants, 21 mounted men, 84 constables and 2 miscellaneous and menials. POLICE.

They were distributed as under :—

Guards, escorts and miscellaneous duties including sick, etc.	40
Loralai *thána*	42
Bárkhán *thána*	19
Duki *thána*	13
Sanjáwi *thána*	9
Músa Khél *thána*	11

Details of the distribution are given in table XXIII, Volume B.

An Assistant District Superintendent of Police, on deputation from Sibi, is in joint charge of the Zhob and Loralai Police, but proposals to appoint a separate European Police Officer for Loralai, and to increase the strength of the police, are (1906) under consideration.

The *chaukídárs* employed in the Loralai bazar, and paid from the Town Fund, were amalgamated with the Police in 1901, and the Town Fund contributes monthly Rs. 131-12-0 for the services of 1 sergeant and 8 constables. The new Police scheme also contemplates certain additions to the *chaukídárs* employed in the bazar. Two *chaukídárs* paid from the Town Fund are stationed at Mékhtar.

From time to time it has been held that the proper agency for the detection of crime in the District was the local headman and the levy, rather than the foreign police-

POLICE.

man, and that the system of tribal responsibility should be more generally extended. In April 1902, an order was issued by the Agent to the Governor-General in which it was laid down that it was the duty of all *lambardárs* or headmen to keep a watch on their villages, and to report the misconduct of any one or the advent of any suspicious person; it was also their duty to detect crime, and when cases were taken up by the Government, to help in their detection by giving direct information or furnishing clues. The headmen have always been held responsible in case of the tracks of thieves not being traced beyond their villages. In 1903, the police force was reconstituted, and it was decided that the investigation and the detection of crime should, in future, be more largely entrusted to levies, and that except in large towns and bazars the duties of the police would be more especially confined to guards and escort duty. All crimes whether committed in towns or in the District are investigated by Police Deputy Inspectors assisted by local levies, and whenever possible local men of good standing are enlisted as Deputy Inspectors.

ystem of ecruitment and training.

The police are enlisted chiefly from Punjábis and others, who come to Baluchistán from India in search of work. The percentage of the people of the country employed in the force is 13. There seems no reason why the enlistment of local men of good character should not be extended. Many policemen have been trained in the Phillour Training School in the Punjab and *munshis* trained there have generally been a success. In all the *thánas* the men receive instruction every morning from the police catechism.

ttitude of he educated eople owards the olice ervice.

An improvement in the direction of educated people taking service in the police is observable. Such men, however, in the majority of cases take up the police service, only as a temporary measure, until they can get better places elsewhere, and improve their prospects.

feasures aken to mprove the tatus of the olice, etc.

Measures have been taken from time to time to improve the pay of the various grades. The revision which was sanctioned in 1903 provided local allowances for certain posts

of Deputy Inspectors and for all trackers an increase from Rs. 17 to Rs. 18, in the pay of sergeants of the second grade; and the reconstitution of the proportions of the various grades of sergeants and constables, so as to give a fairer scale and quicker rate of promotion. POLICE.

The rules regarding finger prints laid down in Punjab Government Resolution No. 1998, dated the 3rd of September 1903, were adopted in 1905 for taking the finger impressions of pensioners, but systematic measures for the identification of criminals by finger prints have not yet been introduced.

Arms. The police have, hitherto, been armed with Snider rifles and side arms, but the substitution of bored out Martini-Henry rifles has been sanctioned and the rearmament is being carried out (1906).

Cognisable crimes. Table XXIV, Volume B, shows the details of cognisable crime for the District for 1903 and 1904. During 1904 the number of cases reported was 137 and the average percentage of convictions 89. Of the total number of cases reported during this year, 106 were miscellaneous, 19 minor offences against property, 1 minor offence against the person, 8 serious offences against property and person or against property only, 2 of murder and 1 other serious offence against the person.

The figures given in the table quoted above really indicate the state of crime in the towns and bazars only. Crime in the towns is committed by Kandahári and Punjábi bad characters who open small shops in the bazar or take service among the followers of a regiment. Outside these places the important forms of crime are adultery and its resulting offences, cattle-lifting and occasional robbery. In the Bárkhán sub-division, Mr. Gleeson, Honorary Assistant District Superintendent of Police, remarks the relations of the woman accused of adultery have even been known to compel her to hang herself. The Marris who reside in the Sibi District are the only people, remarks Mr. Davis, Political Agent, Loralai, who can be described as habitual offenders, who, as already noted, are accustomed to cattle-lifting.

POLICE.

rackers.

It has been a matter of much difficulty to get competent trackers. Trackers from the Punjab will not serve in a Frontier District, but the recent enlistment of local Patháns as such has been very successful.

'revention f crime on he Punjab order.

In 1901 a set of rules was framed by the inter-tribal *jirga* at Fort Munro, under the orders of the Commissioner of the Déraját Division, dealing with the actions to be taken in the case of offenders taking refuge in other tribes, and defining the responsibility of the chiefs and headmen in such cases. These rules are still in force, and as they are of importance they are given in full in Appendix V. The same appendix contains the rules drawn up in 1902 with a view to checking cattle-lifting on the border between Déra Gházi Khán and Baluchistán.

Remarkable rime.

Mention has already been made of the principal fanatical outrages committed in the District. There are a few important inter-tribal disputes which might also be briefly mentioned here.

Jmarzai-Dumar dispute.

The frequent fights that took place in the early days between the Umarzai Taríns of Duki and the Dumars of Sanjáwi, trace their origin to the stream of water which irrigates the Duki lands and which rises in the Bagháo valley owned by the Dumars.

In 1882 Mr. Bruce, then Political Agent, Thal Chotiáli, reported that a dispute as to this water had arisen 14 years previously, in which the Dumars killed a man and commenced a blood feud which lasted for many years. Temporary truces were rudely broken and the quarrel reached a stage at which the interference of British officers became absolutely necessary. Temporary settlements were made by Mr. Duke and Colonel Waterfield, but they were not of a lasting nature. In the year 1882, the Dumars made a raid on the Umarzais and killed 16 of them. The case was enquired into on the spot with the aid of a *jirga*, and the *jirga* were of opinion that the lives taken on both sides balanced one another, and that for the future Rs. 1,000 fine

should be inflicted for each life taken without provocation. Since the commencement of the feud 83 lives had been taken. The *jirga* also made some money awards; and it was arranged that up to a certain point the Duki water was to be protected by the Dumars. Minor points were at the same time settled and an agreement ratified in *darbár*, the terms of which were carried out. Mr. Bruce considered that he had never seen a more difficult case brought up before a *jirga*.

POLICE.

In 1883, the Umarzais again complained that their water-supply was being interfered with. Mr. Bruce made an enquiry; and as a result of it, the Bagháo Dumars agreed to keep their water channel in repair up to Shinléz, to remain at peace with the Umarzai, to furnish hostages, and to give security for a sum of Rs. 5,000.

Marri-Lúni case, 1895.

There had been constant disputes and fighting between the Lúni and Marri tribes in connection with the grazing on the Chamálang plain, and these culminated in April 1895, in a raid by the Loháráni-Marris into the Lúni country, when 14 Lúnis were killed. A counter-raid was made by the Lúnis which resulted in the death of 8 Marris. The case was heard by the Quetta *sháhi jirga* and compensation to the amount of Rs. 18,420 was awarded against the Marris, and Rs. 8,800 against the Lúnis. Four Marris and six Lúnis were sentenced to transportation for life, and others of both tribes to shorter terms of imprisonment. The Marri and Lúni chiefs were required to furnish heavy securities for their future good behaviour, and the rate of blood money between the tribes was raised from Rs. 600 to Rs. 1,000.

Land dispute between Lúnis of Duki and Hamzazais. Bori.

In July 1891, a dispute arose between the Lúnis of Duki and the Hamzazais of Bori regarding the ownership of the Tauda Chína and Tirkha Chína land, near the Anambár gap. This led to an affray between the two tribes, in which one man of the Hamzazais was killed and six wounded, while 16 Lúnis were wounded. Security was taken from both tribes to prevent further hostilities until the dispute between them

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could be settled. The case came before the Sibi *jirga* in March 1892 for settlement. It was then held that both tribes were in fault. The Lúnis were ordered to pay Rs. 400 and the Hamzazais Rs. 600 as fine. The Lúnis were also to pay Rs. 840 as blood money to the Hamzazais. The question of the ownership of the land in dispute was decided by arbitration.

Cattle-pounds.

The District possesses 30 cattle-pounds, which are located at Loralai, Mékhtar, Maratangi and Zara in the Loralai tahsíl; at Duki, Gumbaz, Thal, Nimki, Chamálang, Hosri and Lákhi in the Duki tahsíl; at Sanjáwi, Bagháo and Chautér in the Sanjáwi sub-tahsíl; at Bárkhán, Vitákri, Jehándún, Rarkan, Rakhni, Chúhar Kot, Isiáni, Bagháo, Chacha and Báladháka in the Bárkhán tahsíl; and at Músa Khél, Kingri, Kot Khán Muhammad, Drug, Toisar and Zamrai in the Músa Khél tahsíl.

The cattle-pounds at Loralai, Duki, Sanjáwi, Bárkhán and Músa Khél are managed by the police and the others are under the charge of levy *muharrirs* and patwáris. Fines are levied at rates which vary from one anna per day for a sheep or goat to eight annas per day for a camel, in addition to which feeding charges are also imposed. The receipts are credited to Provincial Revenues under head "XVII Police" from which the charges for maintenance are also met. The pound-keepers and sweepers in the Bori and Músa Khél tahsíls do not receive fixed monthly allowances, but are paid the whole amount of the fines, if the receipts do not exceed R. 1-8-0 a month; R. 1-8-0 when the fines do not exceed Rs. 6, and one-fourth of the receipts when the fine exceeds that amount; their respective shares being two-thirds and one-third. The same proportion of distribution between the pound-keeper and the sweeper is followed for the pound at Báladháka in the Bárkhán tahsíl, the allowances being subject to a maximum of R. 1-8-0. The remuneration in other cattle pounds varies from R. 1 to Rs. 2 for the pound-keeper, and annas 8 to R. 1 for the sweeper; and is

drawn on monthly pay bills. These allowances are, however, subject to the proviso that the receipts of a pound should exceed one rupee a month. POLICE.

JAILS. The subsidiary jails at Duki, Sanjáwi, Loralai, Bárkhán and Músa Khél, possess, respectively, accommodation for about 43, 30, 34, 45 and 14 prisoners (male and female).

Convicts, whose term of imprisonment does not exceed six months, are detained in these jails or lock-ups, while those sentenced to longer terms are sent to the Quetta jail or Hyderábád Central Prison. Prisoners in subsidiary jails are employed for grinding corn for their own food, and on work in the public gardens and roads.

During 1905-6 the total daily average number of prisoners was 78 males and 5 females, and the total expenditure on establishment and contingencies amounted to Rs. 5,319. The number of prisoners in the jails on March 31, 1906, was 68, of whom 63 were males and 5 females.

There is no lunatic asylum in the District, and such lunatics as are required to be detained in an asylum are sent to Hyderábád in Sind.

EDUCATION. Early methods.

Before the British occupation, no system of public instruction existed. *Mullás* taught the Korán by rote to boys and a few girls, and such men among Afgháns as aspired to a more extended knowledge of Muhammadan theology and law, had to spend some years, generally in Kandahár, in prosecuting their studies. *Mullás* charged no tuition fees, but were maintained by the *zakát* subscribed by the villagers, generally one-tenth of the produce of the lands and one-fortieth of the flocks, which every Muhammadan is required to set apart for charity; and also by alms given on various occasions, and by marriage fees. This system is still maintained in many places in the District, and a rough estimate shows that in 138 such institutions about 845 boys (including 17 Hindus) and 183 girls were under instruction in 1903.

EDUCATION. Growth of schools.

Even now the District is very backward in education. There are (1905) five* primary schools for boys—Loralai (established 1894), Gaisford School at Duki (1899), Mékhtar and Chína† Alízai (1902) and Chúhar Kot (1904). The schools at Loralai and Mékhtar are maintained by Local Funds, the former getting a grant-in-aid of Rs. 100 per annum from Provincial Revenues. In March 1905, there were, in all, 95 pupils in these schools, of whom 41 belonged to local tribes, 23 were domiciled Hindus, 21 Indian Hindus and 10 Indian Muhammadans. The total expenditure during 1904-5 was Rs. 1,702, of which Rs. 1,360 were paid from Provincial Revenues, Rs. 277 from Local Funds and the balance realised by fees. Detailed statistics for each school are given in table XXV, Volume B.

Miscellaneous.

The school at Loralai is under the direct control of the Political Agent, that at Mékhtar is in charge of the tahsíldár, Bori, those at Duki and Ismáíl Shahr are under the Extra Assistant Commissioner, Duki, while the tahsíldár, Bárkhán, holds charge of the school at Chúhar Kot. Tuition fees are levied in the Loralai school, but in other village schools only an admission fee of four annas is levied from a boy on his first joining the school. Since 1903, an appointment of Inspector General of Education has been sanctioned for the North-West Frontier Province and Baluchistán, and a Personal Assistant to the Inspector-General has since been stationed at Quetta. The latter is in charge of all the schools in the District and pays occasional visits of inspection and advises the Political Agent on all points connected with the schools.

Libraries.

A public library was established at Loralai in October 1903, and is located in the *Jirga* Hall. It has three classes of members, the rates of monthly subscription varying from four annas to one rupee; and it receives a monthly subscription of Rs. 15 from the Loralai Town Fund. In

* Does not include the Primary School established in October 1905 Ismáíl Shahr in Duki.

† Closed in 1906.

March 1905, the library had 34 members. It possesses (July 1906) 94 English and 191 Vernacular books, and subscribes to 12 papers and periodicals.

EDUCATION

MEDICAL.

The District possesses five civil dispensaries, i.e., at Loralai, Bárkhán, Músa Khél, Duki and Sanjáwi. The Military Hospital Assistants at Gumbaz in the Duki tahsíl, and Khán Muhammad Kot in the Músa Khél tahsíl, are paid a monthly allowance of Rs. 5 each from Provincial Revenues for their services to the civil population. Separate statistics for each civil dispensary, covering the period from 1893 to 1904, will be found in table XXVI, Volume B.

The Principal Medical Officer is the Agency Surgeon, who is also the Administrative Medical Officer of the whole Province. The senior Military Medical Officer at Loralai is ex-officio Civil Surgeon, and receives a monthly allowance of Rs. 100 from Provincial Revenues, and of Rs. 50 from the Town Fund, and supervises the civil dispensaries of the District.

Loralai dispensary.

The Loralai dispensary was established in March 1887, and a permanent building for it was provided in 1888. It can accommodate 18 in-door patients. The dispensary is in charge of a Hospital Assistant who receives an allowance of Rs. 10 per mensem from the Town Fund for sanitary work, and Rs. 10 per mensem from Provincial Revenues for jail and police work. The cost of the dispensary is met from Provincial Revenues. In 1904 the total number of in-patients treated was 250 and of out-door patients 14,119, while 438 operations were performed.

Other dispensarie

The Duki, which in its early days was known as the Thal dispensary, was opened in 1883, Bárkhán and Músa Khél in 1893, and Sanjáwi in 1894. The Duki dispensary has accommodation for 6 in-patients. A Hospital Assistant is in charge of each dispensary. and the cost is met from Provincial Revenues. The number of in-patients treated in these dispensaries in 1904 was 131, and of out-patients 22,802.

MEDICAL.

The dispensary at Sanjáwi is moved annually to Ziárat during the summer months.

incipal seases and eir causes.

The principal diseases are malarial fever, ulcers and skin diseases, diseases of the respiratory and of the digestive system, and eye and venereal diseases. The excessive cold in winter, in the Bori, Sanjáwi and Músa Khél tahsíls causes attacks of pneumonia, catarrh, bronchitis and frost bite. The total number of 37,302 in and out-patients treated in the five civil dispensaries in 1904 included 8,208 cases, or 22 per cent of malarial fever, 553 of venereal diseases, 2,534 of diseases of the eye, 2,891 of diseases of the respiratory system, 8,286 of diseases of the digestive system, 3,588 of ulcers, 2,039 of injuries, and 1,087 of rheumatic affections.

alaria.

In his Medical report for the year 1904, the Agency Surgeon records that, in Baluchistán, malaria is "at once the greatest primary cause of illness, and indirectly gives rise to a large proportion of the ill-health expressed in other terms." The country being watered by narrow channels in which grow grass and weeds, innumerable opportunities are given for breeding mosquitoes in the stiller water at the edges, and especially in any little pool made by overflow or leakage from the stream.

The eye diseases are due to dust storms and to the filthy habits of the people. The frequency of ulcers is the consequence of the personal uncleanliness. Great diurnal variations of the temperature in winter, insufficient clothing, and dry climate and winds, causing rapid evaporation from the surface of the body result in the diseases of the respiratory system, while the digestive complaints are due to coarse, improperly preserved and improperly cooked food, and to scarcity of vegetables. The skin diseases are an outcome of the dirty and filthy living. The low morality of the Kákars and their dirty habits are responsible for venereal diseases.

iolera.

Cholera broke out in the Thal Chotiáli District early in 1885, and in the Thal Chotiáli Sub-division there were 98 seizures and 89 deaths. In 1891 there was a widespread

outbreak of cholera in nearly the whole of the Baluchistán Agency. It started from Sibi and Mudgorge, spread to Duki, and resulted in 49 deaths. This was followed by another outbreak in June 1892, in Sibi whence it spread to Duki and Sanjáwi, but there were only a few deaths. Towards the close of September 1892, cholera broke out in a virulent form in the Bori valley and lasted for about ten days. It was brought there by Násars who were proceeding towards Déra Gházi Khán. There were 93 cases in all, out of which 80 proved fatal. MEDICAL.

In the summer of 1900 cholera again broke out and its severest visitations were experienced at Loralai and the neighbouring villages, the villages in the Duki and Bárkhán tahsíls, and at Sanjáwi. An observation camp was established at Harnai. The number of seizures reported was 517, of whom about 300 died.

Writing in connection with the outbreaks of cholera in 1891 and 1892 the Agency Surgeon said :—

"The history of these two outbreaks of cholera closely resembles that of others already recorded in former years. The disease generally first appears among the people living on the Bolán or Nári systems of water-supply, which consist of exposed surface irrigation streams easily susceptible of pollution and infection, or it suddenly breaks out among workmen who are dependent on open exposed streams for their water-supply. The disease is then carried from one exposed water-supply to another, and these supplies are often limited in number and far apart, and, as the travellers generally travel long distances to their homes, infection is quickly and widely spread in all directions. In my opinion all open exposed streams, especially those on the line of frequented roads or *káfila* tracks, are never safe, as they are always exposed to pollution and infection from many sources. The only extensive and sudden outbreaks of cholera we have had in the last fifteen years in Baluchistán have occurred in villages or collections of men congregated along open streams;

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while, on the other hand, towns, villages and other communities, supplied with water taken direct from springs, artesian wells, or deep *kárézes* not susceptible of pollution or infection have never developed cholera to any great extent."

Small-pox.

Both small-pox (*kawae*) and measles (*sharae*) appear to be endemic. In May and June 1900, severe outbreaks of small-pox occurred at Músa Khél; and in the autumn it raged in a severe form in the villages near Loralai and Duki. The prevalence of the disease is said to be greatly due to the local practice of inoculation.

Vaccination and inoculation.

Inoculation is unknown in the Músa Khél tahsíl, and in Bárkhán it has not been practised since 1884. In the rest of the District it is freely practised by *mullás*, Saiads and other persons of religious sanctity, whose services are requisitioned when an out-break of small-pox occurs, and who are paid some fee in cash or kind.

Certain persons are generally considered specialists in the art. The method usually adopted is for a small incision to be made with a razor on the wrist of the right hand (in Duki it is made on the left wrist), in which a small-pox pustule and a grain of wheat are placed. In the Sanjáwi tahsíl powdered pustules, mixed with cloves (*laung*), and a grain of wheat are placed in the incision. A cloth bandage is then tied over the wound with a piece of bread. The patient is then segregated, and is only visited by persons who have themselves had small-pox. An eruption and fever generally occur within from three to seven days after the operation, and at this time the patient is fed on strengthening food, such as meat, soup, milk, etc., but no sour or acid substances are given. If no eruption or fever occurs within seven days, the operation is repeated a second and sometimes a third or fourth time, until it proves successful. When suffering from the eruption, a patient may not be visited by women or other persons who for any reason may be considered "unclean" according to the custom of the country. The indigenous Hindus consider small-pox to be a divine visitation.

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Vaccination is optional. In the Músa Khél and Bárkhán tahsíls it is much resorted to, but in the rest of the District inoculation is preferred to vaccination. The advantages of vaccination are, however, beginning to be appreciated, and in 1904, 1,764 successful operations were performed.

Indigenous remedies.

While the people who live in the neighbourhood of dispensaries have begun to appreciate the advantages afforded by British medical institutions, and freely visit them, those living in the remote parts still resort to their own simple remedies, of which some account may be given here. It may be noted that *mullás* and Saiads' charms and amulets and the dust taken from the shrines of local saints play an important part. These are considered especially efficacious in cases of syphilis, and snake bites.

Khwa badi or *gholakai* (possibly typhus) is considered infectious, and a *mullá* draws a line round the hut or *kizhdi* in which the patient is placed to keep off infection. In the Bori tahsíl twigs of *umán* (*Ephedra pachyclada*) are boiled in water and the decoction is given to the patient on the 5th, 7th, 9th, 11th, and 13th day, and on these days a plaster made of the seeds of the bitter pumpkin mixed with the bile of an ox is applied to the forehead, joints and palms of the hands. If this remedy fails, the patient is wrapped in the skin of a freshly killed sheep or goat. In the Sanjáwi tahsíl the patient is covered with a blanket, and is made to inhale the steam produced by putting heated stones in cold water in which pounded leaves of willow have been soaked. He is given chicken soup, and, if this treatment fails, is wrapped in the skin of a freshly slaughtered sheep or goat. The same remedy is also adopted in Músa Khél.

In cases of pneumonia (*skárwai*) the most common remedy in the Bori and Músa Khél tahsíls is to wrap the patient in the skin of a sheep killed for the purpose, but in Bori the fat is also applied to the patient's chest, and in Músa Khél, a powder made of the root of *zralg* (*Berberis vulgaris*) is given to the patient for three successive days,

MEDICAL.

beginning from the third day. In Bárkhán bleeding from the arms is resorted to, while in Sanjáwi the chest is protected with a bandage and the patient is given chicken soup with turmeric, pepper, black cumin seed and asafœtida.

The most common remedy in the Bori and Sanjáwi tahsíls in the case of malarial fever is to wrap the patient in the skin of a freshly killed sheep or goat. A purgative is also given, and in Bori this is followed by an infusion of *tirkha* (artemisia).

In cases of eye disease, in the Bori tahsíl, a piece taken from the lung or ears of a goat is tied over the eyes, while in Músa Khél alum is roasted, mixed with butter and applied to the affected organ.

orking of e pice ıcket stem of le of uinine.

The pice packet system of selling quinine, through the agency of the Post Office, was introduced in 1895. During the first year, i.e., 1895-6, 561 packets were sold, of which 269 were sold at Mékhtar, 168 at Loralai and the remainder at Duki, Gumbaz, Sanjáwi and Bárkhán. In 1904-5 the sale had risen to 590 of which 266 and 217 packets were sold respectively at Sanjáwi and Mékhtar. Of the balance 77 were sold at the Loralai and 30 at the Kingri Post Office.

llage nitation d water-pply.

Apart from the headquarter stations, and some important villages such as Mékhtar, Smállan bazar, Duki, Háji Kot and Chúhar Kot, where sweepers are employed no arrangements, official or private, for the sanitation of villages exist. The litter and filth are allowed to remain in the houses and streets until they are removed for manuring the fields. The migratory habits of the people, however, assist in sanitation to a certain extent. With the establishment of peace and security there is also a tendency among the *zamíndárs* to desert the villages and to build their houses near their fields.

The supply of drinking water is drawn from springs, streams or *kárézes*. In the *khushkába* plots in the Mékhtar circle of the Bori tahsíl and in similar tracts in the Sanjáwi sub-tahsíl, in the Lákhi and Lúni circles of Duki, and

in the Sahara valley in Músa Khél, drinking water is obtained from wells, and also from pools in which rain water has collected. MEDICAL.

The wells offer a fairly well protected source of supply, but the open channels are especially liable to pollution and infection, and are a source of danger in time of epidemics. On the whole, the quality of the water, throughout the District, is said to be good. The military station of Loralai was provided with a piped water-supply in 1901, which was extended to the civil station in 1904. As regards the supply of water in the Bori tahsíl, the Civil Surgeon remarked in 1903 that "the water of the country being impregnated with salts of various kinds is very apt to set up bowel complaints such as diarrhœa, dysentery, dyspepsia, etc."

SURVEYS.

The Survey Department of the Government of India has prepared and published maps of the whole District on the one-eighth, quarter, and half inch scales. In connection with the settlement operations, a cadastral survey of all irrigated and of one *khushkába* village in the Sanjáwi tahsíl on the scale of 16 inches to the mile was undertaken during 1899-1900. A field to field survey of the lands in the Bori tahsíl, at a scale of 60 and 30 *karams* to an inch, was made in 1903-4. The land in both the tahsíls was classed under the heads of irrigable, garden, *khushkába*, culturable, unculturable and *chuman*, the irrigable area being sub-divided into different classes according to its capacity for yielding crops. The agency employed for the village cadastral survey was almost entirely non-indigenous, and was recruited principally from the Punjab.

CHAPTER IV.

MINIATURE GAZETTEER.

BARKHAN-MUSA KHEL SUB-DIVISION.

The Barkhan-Musa Khel Sub-division was made up of these two tahsíls, on the formation of the Loralai District in October 1903, and was placed in charge of an Extra Assistant Commissioner with head-quarters at Bárkhán.

MUSA KHEL TAHSIL. General description.

The Musa Khel tahsil, which has an area of 2,213 square miles, lies in the north-eastern corner of the Loralai District between 30° 17′ and 31° 28 N., and 69° 28′ and 70° 15′ E. The tahsíl is generally hilly, with the exception of the main valley known as the Músa Khél Sahra. The lie of this valley is from south-west to north-east and it is enclosed on all sides by hills. It is divided into two parts by the Tang or Vihowa stream, the northern portion being called the Bar, and the southern, the Lar Sahra. Besides the Sahra it has a number of smaller valleys, the drainage of which, uniting below Khán Muhammad Kot, forms the Lúni river, or northern branch of the Sanghar.

The following tracts are comprised in the Bar Sahra:—

(1) Taláo which contains the headquarters of the tahsíl and the lands irrigated by the Tang and Vador streams.

(2) Ghund situated in the south-east corner of the valley.

(3) Baha immediately in front of the Wruskai pass.

(4) Talai which lies between Baha and Músa Khél Bazar.

(5) Ulmai south of Talai, between it and the Tarkar range.

Lar Sahra, which is of much less extent than Bar Sahra, is divided into two unequal portions by the Razana stream, which joins the Toi near its exit from the Gat defile. The western portion contains the Logbai and Dámán tracts.

The general elevation of the Sahra valley varies from 3,000 to 4,000 feet.

MUSA KHEL TAHSIL. Boundaries.

The tahsíl is bounded on the north by the Déra Ismáíl Khán District, on the east by the Déra Gházi Khán District, on the south by the Bárkhán tahsíl, and on the west by the Bori tahsíl of the Loralai District, and the Fort Sandeman tahsíl of the Zhob District.

Hills.

The two principal ranges running from north to south are the Súrghar and Torghar branches of the Sulaimán range. The former lies in the west, and comprises: the Satyára (7,889′), Khiázah (7,175′), Charkundae (7,598′) and Kakal (5,928′). The Torghar lies in the east, and includes the Nashtarghar or Mizri Roh (10,200′), Chappar, Salai, Narai, Tiar (7,640′), Buj (7,620′), Hazárgat (8,054′) and Béhu (7,970′).

Drainage and rivers.

The general drainage of the valley is from west to east and is carried by three main streams: the Toi, Lúni, and Sanghar rivers. In the north-east, the Zmarai country is drained by the smaller hill torrents—the Ramak and Guzai. The Toi is formed by the junction of the Razana, Tang and Kharspún or Tangi Sar, and is known beyond the boundaries of the tahsíl as the Vihowa river. The Sanghar, which at its different sources is known as the Lang and Zárni, and in its further course, where the two tributaries meet, as the Drah, drains the Drug valley. The important affluents of the Lúni are the Rod, Lori Tang (made up of Dab and Khajúri), Kingri and Sarín.

Forests.

There are no reserved forests in the tahsíl. The principal trees are the *acacia modesta*, *showan* (olive), *gargol* (*Zizyphus oxyphylla*), *karkan* (*zizyphus nummularia*) *bér* (*Zizyphus Jujuba*), *shrawan* (*Pistacia cabulica*) and in some places the *tahli* (*Dalbergia sisoo*) is also found. A few Box trees were seen in 1892 by Mr. Elliot, Deputy Conservator of Forests in Baluchistán, on the summit of the range which separates the drainage flowing south-east through the Vihowa pass, from that which flows north and west. This is the only place in Baluchistán where Box has yet been discovered.

MUSA KHEL TAHSIL.

Climate, etc.

The climate is hot and dry in summer but cold in winter. The average temperature is 85° and 43° in summer and winter respectively. The average annual rainfall is about 6 inches. The fall is generally larger in summer than in winter when it occurs in the form of snow. Dust storms occur frequently in July and August.

History.

The Músa Khéls first came in contact with British officers in 1883, when Mr. (Sir Fred.) Fryer settled their disputes with the Hadiánis and Durkánis. They also took part in the outrages committed by the Kákars under Sháh Jahán in 1884, and on the conclusion of the expedition undertaken in that year, surrendered to the British Government and agreed to pay a fine of Rs. 2,000. In 189) when the Zhob Agency was formed, Músa Khél was included in it. The tahsíl was established in 1892, and was transferred to the Loralai District in October 1903.

Population.

In 1905, the tahsíl contained 61 villages, and the total population, according to the census of 1901, was 15.537 (8,374 males, and 7,163 females) or 7 persons to the square mile. Of these 15,377 were Muhammadans and 158 Hindus. The indigenous inhabitants, who are Musalmáns of the Sunni sect, numbered 15,282; males 8,194 and females 7,088. The principal tribes represented were: Isot Afgháns (1,941); Jáfar Afgháns (1,026); Panri Afgháns (10,144) including the Músa Khél clan (9,748), the principal divisions of which are the Bél Khél (7,662) and Laharzai (2,086); and Saiads (271). The chief language spoken is Pashtú.

The inhabitants still retain their nomadic habits and live in temporary settlements; the number of permanent villages is limited. The head quarter station, known as **Musa Khel Bazar**, lies in 30°52′ N. and 69°49′ E., and has a population of 140 souls. It has a few shops, a dispensary, and a Post and Telegraph office. **Drug** and Khán Muhammad Kot are Military outposts. The important settlements are Zawar Zebri (486), Shádézai (463), Lagharbáh (521), Tap (602), Pitáo Hasan Khél (575), Toi (505), Záma (911),

Zhazha (450), Salli (784), Wáh (486), Kingri (605) and Khajúri (545).

MUSA KHEL TAHSIL. Agriculture.

The principal occupation of the tribes is agriculture combined with flock-owning; the Laharzais are the largest flock-owners.

The permanent sources of irrigation are twelve streams and seven springs. The Toi stream irrigates the lands of the Drug and Toisar circles. About 35 per cent of the culturable area is irrigable, while the major portion depends on rain. The soil of the Sahra valley is fertile, and consists of soft clay but that of the hilly tracts is mixed with gravel. The *rabi* or spring harvest is the more important one and consists of wheat and barley; the former being the chief crop. The autumn harvest consists of maize, *juári*, *mung*, *bájra* and other miscellaneous crops, maize and *mung* being the principal ones. A rough estimate of the agricultural stock made in 1904-5 put the number of donkeys at 800, camels at 800, sheep and goats at 121,000, and cows and bullocks at 4,700. The nomads possessed 285 donkeys, 647 camels, 335 cows and bullocks and 6,482 sheep and goats.

Communications.

The principal routes and tracks are :—(1) From Fort Sandeman to Músa Khél (58 miles), to Khán Mohammad Kot (77 miles), and to Kingri on the Pishín-Déra Ghází Khán road (95 miles); (2) Músa Khél to Drug viâ Bulfarz Tangi (33 miles); (3) Músa Khél to Murgha Kibzai (30 miles); (4) Toi Sar to Dahána Sar (*c* 29 miles); (5) Bulfarz Tangi to Vihowa viâ Chatar Vata (*c* 34 miles); (6) Drug to Taunsa Sharíf viâ the Drah pass and Fazla Chauki (*c* 40 miles); (7) Khán Muhammad Kot to Bárkhán viâ the Sarín stream (*c* 29 miles) and (8) Músa Khél to Mékhtar viâ Kakal Dámán (*c* 44 miles).

Administration and staff.

The tahsíl forms part of the Músa Khél Bárkhán Sub-division, and is under the charge of a tahsíldár who is assisted by a náib-tahsíldár. It is divided into 4 patwáris' circles—Sadar or headquarters, Kingri, Toi Sar and Drug. The

MUSA KHEL TAHSIL.

subordinate staff consists of 1 muhásib, 1 kánúngo and 4 patwáris. There are 116 *maliks* or headmen of villages.

The total number of levies employed in the tahsíl is 65, distributed in 10 posts, details of which are shown in table XXII, Volume B. The total number of police employed in the tahsíl is 11. A small detachment of cavalry is posted at Khán Muhammad Kot, and of infantry at Músa Khél and Drug. The replacement of these detachments by police and levies is (1906) under consideration.

Land Revenue.

Revenue is recovered at the rate of one-sixth of the gross produce, and grazing tax is also levied. As the tahsíl is largely under *khushkába* cultivation, the revenue fluctuates according to the conditions of the season. The average annual land revenue for the quinquennial period ending with 1903-4, amounted to Rs. 21,506 and included Rs. 7,572 on account of grazing tax, while in 1904-5 the total land revenue amounted to Rs. 24,244, of which Rs. 9,919 were contributed by grazing tax.

DRUG.

Drug, a flourishing village belonging to the Jáfar Patháns, lies in the valley enclosed between the Baga-roh and Kála-roh hills, at an elevation of about 3,500 feet. It is situated about 30° 51′ N. and 70° 12′ E., about 33 miles due east of Músa Khél, with which it is connected by a bridle path. In 1901 its population was 586, which included 440 Jáfars of the Umráni and Khidráni sections, 121 Hindus and 25 artisans. The village headmen are Kálu Khán, Umráni, and Ahmad Khán, Khidráni, both of whom enjoy *muáfis* and have taken service in the levies. The village lands are both *ábi* and *khushkábá*, and the drinking water is obtained from springs. The village has 2 *masjids*, a *musáfar-khána*, a Hindu *dharamsála*, a rest house, quarters for a patwári, levies (10) and a small detachment of Infantry. Ordinary supplies can be obtained from the shops.

The Hindus carry on considerable trade; the chief articles imported are cotton piece-goods, grain, oil and sugar; wool, *ghí* and ropes made of *písh* (dwarf palm) leaves are exported.

The patron saint of the village is Sheikh Háji Habíb, and the keepers of his shrine enjoy a *muáfi* of land and grazing tax, valued at about Rs. 32 per annum. Khwája Sulaimán, whose shrine at Taunsa in the Déra Gházi Khán District is much renowned, was a Jáfar, and a *muáfi* of 23 acres, valued at about Rs. 87 per annum, of land is attached to his father's shrine at Drug. MUSA KHEL TAHSIL.

BARKHAN TAHSIL. General description.

The Barkhan tahsil is situated in the south-east portion of the Loralai District, lying between 29° 37′ and 30° 21′ N., and 69° 3′ and 70° 4′ E., with an area of 1,317 square miles. It is bounded on the north by the Músa Khél tahsíl, on the east by the Déra Gházi Khán District, on the south by the Marri-Bugti country and on the west by the Duki and Kohlu tahsíls. The head-quarter station of the tahsíl, known also as Bárkhán, is about 3,650 feet above sea level.

The tahsíl consists of one main valley, known as the Bárkhán valley with several smaller parallel valleys, such as the Bagháo, Tagháo, Rakhni, Chacha and Mat, etc., which are separated from it by low ranges of hills running in a south-westerly direction. The soil in these valleys is extremely fertile.

Hills.

The hills in the tahsíl belong to the Sulaimán range, and the principal ones are: the Kála Pahár (6, 287′) in the north; Karwada, Bibur (6,285′), Jandrán (6,727′) and Már (4,900′) in the west; Andari (3,060′), and Sukha (4,552′) in the south; Phuláli (5,561′) and Khwája (4,492′) in the east; and Mazára (5,980′), Taghah (4,159′) and Díg (6,102′) in the centre.

Rivers.

The northern portion of the tahsíl is drained by the tributaries of the Rakhni hill torrent, while the rest of the drainage is carried in a southerly direction by the Káha river which is made up of the two principal hill torrents, the Rakhni in the east and the Han in the south. Each of these has again several tributaries.

Climate, temperature and rainfall.

The climate of Bárkhán is hot in summer and dust storms are not uncommon. The temperature varies from 80° to 94° in summer and from 58° to 68° in winter. No

BARKHAN TAHSIL.

statistics of rainfall are available, but it is scanty and variable. In the adjacent hill station of Fort Munro, the elevation of which is 6,307 against 3,650 of Bárkhán, the annual average is about 11 inches.

History.

In 1878, Sir Robert Sandeman made an arrangement with the Khétráns and the Legháris, under which troops could, if necessary, be located in the valley. In 1879 Vitákri was occupied, to afford a check on the Marri depredations, but the troops were shortly afterwards withdrawn. The place was again held by troops from 1881 to 1883. The control of the Khétrán tribe was transferred from the Punjab to the Baluchistán Agency in 1884. In 1887 the Khétráns were brought under more direct control, and the tract was added to the Thal Chotiáli Agency, and made into a separate tahsíl. Certain transit dues and cesses levied by the Mazaránis were abolished, compensation in the shape of an allowance being paid to them, and revenue was imposed at the rate of one-sixth of the produce. In 1890 the tahsíl was included in the Zhob Agency; it was retransferred to Thal Chotiáli in April 1892, but its revenue was credited to Zhob up to March 1897. In October 1903, the tahsíl was included in the new District of Loralai.

Tribal disputes. Quarrel between the Khétráns and Hadiánis settled by the Agent to the Governor-General in 1879.

Towards the close of 1879, the Khétráns were guilty of an outrage on the Hadiánis, and as the Deputy Commissioner, Déra Ghází Khán, reported that he could not settle the case, the Agent to the Governor-General proceeded to the disturbed districts to effect a settlement. The Durkánis joined the Hadiánis, and the dispute threatened to embroil other tribes. The visit of the Agent to the Governor-General was successful, and peace was restored.

Quarrel between the Gurchánis and Khétráns.

In 1881, the Gurchánis made a serious attack on the Khétráns, and fearing that the quarrel might extend to the Hadiánis, the Deputy Commissioner, Déra Ghází Khán, proclaimed a blockade. The imposition of this blockade received the sanction of Government. Later on, the Durkánis submitted and all claims against them were settled.

BARKHAN TAHSIL.

Marris and Khétrans.

In December 1890, a serious affráy took place between the Marris and Khétráns, near the Bárkhán tahsíl at Háji Kot. It originated in the Marri cattle damaging the Khétrán crops, and culminated on the occasion of a foot-race in which the stake was only 1 rupee. The Khétráns followed the Marris, keeping up a fire upon them as they retired towards the hills, but on receiving reinforcements, the Marris returned the fire, wounding two Khétráns. The Khétráns retreated, and that night killed two Marris who resided in Bárkhán. The matter was laid before a combined *Jirga* of Baluchistán and Punjab chiefs at Muranj, in January 1892, and the settlement, subsequently confirmed by the Agent to the Governor-General, laid down that both tribes should pay Rs. 600 as blood money for each man killed, and corresponding compensation for each man wounded. The Khétráns, as being the aggressors, were to pay Rs. 600 in addition. This affray brought to notice the hitherto unsatisfactory relations between the Khétrán and Marri tribes, and it was decided by the Agent to the Governor-General that the control of the Khétrán tribe, or, in other words, the Bárkhán tahsíl, should, for geographical reasons, be transferred from the Political Agent, Zhob, to the Political Agent, Thal Chotiáli, from 1st April 1892.

Marri-Phadal case.

The agent of the Leghári chief leased the Kuchhi land in Vitákri, to the Lohárâni Marris, for cultivation, the same plot having been given by the Leghári chief to the Phadals. When the Marris went to cultivate the land in July 1897, the Phadals prevented them from doing so, saying that the land was theirs. This gave rise to a quarrel between the tribes. The Marris attacked the Phadals and severely wounded two of them, while a third had a narrow escape. The Marris also took away some ploughs and other implements belonging to the Phadals, and the case was referred to the Sibi *Jirga* for settlement. The Marris were made to pay Rs. 850 compensation to the wounded, Rs. 140 to the Khétrán Chief, and Rs. 550 to Government as fine.

BARKHAN TAHSIL.

Conduct of Sardár Mehráb Khán, Khétrán.

On the 14th of September 1899, Sardár Mehráb Khán, Khétrán, who had previously quarrelled with his *munshi*, attacked him in the Bárkhán tahsíl and slightly wounded him with a shot gun. On being pursued and fired upon by the police he returned the fire and killed a police constable. The Sardár then fled to Fort Munro and gave himself up. The case was referred to a *jirga* which recommended :—

(First) That Mehráb Khán should pay Rs. 1,500 as compensation to the heirs of the deceased constable, (second) that he should be suspended from the sardárship, and should reside for two years away from his country at Sibi or Sháhrig, and give security for Rs. 5,000 that he would not attempt to escape or otherwise misbehave, and (third) that during his suspension the management of the tribe should be carried on by his brother Bakhtiár Khán.

These recommendations were sanctioned by the Agent to the Governor-General, with the proviso that in the matter of the restoration of Mehráb Khán[1] to the sardárship, after the expiration of the two years, full discretion was reserved to Government.

Leghári Bárkhán and case 1885—1897.

In 1884, the Leghári Bárkhán circle, which comprises the two valleys of Leghári Bárkhán and Vitákri, was transferred from the Punjab to the Political control of the Baluchistán Agency, along with the main Bárkhán valley. In 1885 Nawáb Muhammad Khán, the Leghári chief, asserted his claim over Leghári Bárkhán. The claim was renewed in 1888, when the Nawáb begged that he might be exempted from the payment of Government revenue, and urged that if he could not have the lands in *jágír*, a fixed cash assessment be put on them and he be allowed to collect the revenue in kind from the cultivators ; but Sir Robert Sandeman, then Agent to the Governor-General, declined to entertain the claim. The revenue for the years 1888 and 1889 was fixed by the tahsíldár of Bárkhán in communication with the Nawáb or his agent and the amount was realized from the Nawáb him-

[1] Mehráb Khán died on the 26th of February 1907.

self; but from the *rabi* harvest of 1890 to March 1897, the assessment was imposed at each harvest, by the tahsíl officials, and recovered direct from the Náhar cultivators.

In 1892, K. B. Kázi Jalál-úd-dín, Extra Assistant Commissioner, Duki, made an enquiry into the Nawáb's claim, and in 1893 Captain (now Major Sir Henry) MacMahon, then Political Agent, Thal Chotiáli, made a further enquiry, but the Nawáb did not come to terms. Under the orders of the Government of India, a joint enquiry was held on the spot by Messrs. J. A. Crawford, Revenue Commissioner in Baluchistán, and A. H. Diack, Settlement Collector, Déra Gházi Khán. The Legbári claimants were represented by Sardár Tagia Khán, Nawáb Muhammad Khán having died in December 1896. As the result of this enquiry, the Leghári *Sardárs* were recognised as superior proprietors (*ála málik*) and the Náhars as inferior proprietors or *adna málik* in the nine tracts known as Bádra, Jhalli (including Leghári Kot), Núra, Jahándún or Náhar Kot (including Kharra), Sangiáli-Kákor, Vitákri, Lákhíbhar, Biháni and Drigri. Within these tracts the revenue was to be levied at one-fifth of the gross produce, and one-third of the receipts was to be paid to the Legháris. In lands outside the villages or settlements, the Leghári claimants were permitted to regulate cultivation free of revenue for ten years, from 1st April 1897, at the end of which period, any land that remained uncultivated would be at the disposal of Government. The detailed terms which were agreed to by Sardár Tagia Khán and approved by the Agent to the Governor-General in Baluchistán, are embodied in an agreement, dated the 9th of April 1897, which is printed as Appendix VI.

In accordance with clause 2 of this agreement, the limits of each of the nine villages and settlements mentioned above, were demarcated by Rai Sáhib Jamiat Rai in June—August 1897, under the orders of Revenue Commissioner and each village and settlement was allotted not only the lands which had already been brought under cultivation,

BARKHAN TAHSIL.

whether irrigated or unirrigated, but also a reasonable amount of waste land, to provide for extension of cultivation and grazing. Under this arrangement the total area allotted to the villages and settlements was 12,425a.-3r.-23p., comprising (*a*) land already under cultivation, 5,867a.-0r.-23p., (*b*) waste land allotted, 5,168a.-1r.-22p., (*c*) land allotted for grazing purposes, 1,390a.-1r.-18p.

In March 1899, a supplementary agreement was made with the Leghári Chief, under which, any surplus water from existing sources of irrigation might be utilised for the cultivation of lands beyond the limits of those villages and settlements already allotted to the Náhars under the original agreement.[1]

ola Dhér nds.

The case owes its origin to a dispute between the Mohma Khétráns and the Buzdárs, regarding the ownership of certain lands. The dispute arose in 1887, and after lengthy correspondence it was decided that the Lola Dhér lands lay in the Punjab. The boundary was defined by Messrs. Younghusband and MacMahon in 1891, and indicated on the ground by Messrs. Forbes and Wallace in 1896.

Previous to this decision, the Buzdárs had bought, for the sum of Rs. 4,000, a tract of country of which the Lola Dhér lands formed the greater part, the remainder, about one-third of the whole, being situated within Bárkhán limits. After one-half of the purchase money had been paid to the Salaráni Mohma Khétráns, the Jamiáni section of the Mohmas claimed a right of pre-emption, which claim was amicably decided in 1898 between the parties. Briefly the decision was that the Buzdárs should retain all the land on the Punjab side of the border, and pay Rs. 1,500 out of the Rs. 2,000 then due by them. In respect of the balance (Rs. 500) they relinquished their claim to the land on the Baluchistán side of the border. The boundary pillars, however, were not erected, and the matter lingered on till 1905, when Captain Coldstream, Political

[1] The arrangement made in 1897 was extended by a period of 7 years on terms which are contained in an order issued by the Revenue Commissioner on the 11th of June 1907, embodied in Appendix VI.

Assistant, Déra Gházi Khán, and Lieutenant Daukes, Assistant Political Agent, Loralai, met at Lola Dhér to define the boundary line, and to decide the amount of compensation, if any, to be paid by the Buzdárs to the Khétráns, on account of encroachments alleged to have been made within the boundaries of the latter by the former. The boundary was laid down, and pillars were erected. The Khétráns gave up all claim to the Narél Chur water, and sold to the Buzdárs for Rs. 300 a strip of land containing the channel which led the Narél water to the Buzdár lands.

BARKHAN TAHSIL.

In Appendix VII are contained (*a*) an extract from the agreement regarding the Zhob-Déra Gházi Khán boundary (1891), and (*b*) a copy of a joint report, dated the 25th of February 1905, submitted by Captain Coldstream and Lieutenant Daukes, together with a copy of the map.

Population.

In 1905, the tahsíl contained 108 villages, and the total population, according to the Census of 1901, was 14,922 (males 7,868, and females 7,054) or 11 persons to the square mile. Of the total, 14,145 were Muhammadans, 764 Hindus, 1 Christian and 12 others. The indigenous Musalmáns, who are of the Sunni sect and speak the Barazai or Khétráni dialect, numbered 13,994: males 7,310 and females 6,684. The principal tribes represented were: Afgháns (105); Buzdár (431); Gurchâni (139); Leghári Baloch (309); Dhara (3,705); Ispáni (4,055); Phalliát Khétráns (5,108) and 103 Saiads. The principal occupation is agriculture but the Súnman, Lalla, Waga, Sheikh and Hasni tribes combine flock-owning with it. The domiciled Hindus (699) are engaged in trade, and some own lands also.

The two well known shrines are those of Pír Sháh Mahmúd in Dathi and Pír Lákha in Leghári Kot.

BARKHAN HEAD-QUARTERS WITH HAJ KOT AND CHUHAR KO

The **Barkhan headquarter station** is situated close to the bank of the Han, at an elevation of 3,650 feet. It contained 124 persons in 1901, chiefly Government servants. The tahsíl is a fine spacious building, loop-holed for defence and contains a dispensary, a police *thána*, a combined post

BARKHAN TAHSIL.

and telegraph office, and quarters for the tahsíldár and náib-tahsíldár. The levy *thána* is close to it and is of the same solid construction. Besides the above buildings, there are the Extra Assistant Commissioner's Court, his bungalow, quarters for clerks, a rest house and a mosque. There are two *banias'* shops which are situated in the levy *thána.* Two gardens, attached to the station, supply fruit and vegetables. Water for drinking purposes and for irrigation is obtained from the Hankui spring from which a channel flows close to the tahsíl. A small conservancy establishment is maintained.

The important village of **Mir Haji** Kot lies some 2 miles to the north-east of the Bárkhán head-quarters, at an elevation of 3,627 feet. It was founded by Sardár Alu Khán Mazaráni about 150 years ago, and named Kot Alu. On his death it was named Háji Kot after his brother Mír Háji. It is the residence of the Khétrán Sardár and is noted for its manufacture of nosebags, carpets, embroidered sandals, belts and horse gear. In 1901, it contained 866 persons, males 450 and females 416, Mazaránis being the chief inhabitants. There is a *pucca masjid* built by Bakhtiár Khán Mazaráni, at a cost of Rs. 1,000. There is also a small levy post (5 men), and a Primary School.

About 2 miles further east of Mír Háji Kot lies **Chuhar Kot,** a strongly built village with towers of rubble masonry, situated on high ground above the left bank of the Dhaola *nullah.* It was founded by Sardár Garázu Khán Mazaráni, some 200 years back and was named Chúhar Kot after his son Chúhar Khán. In 1901 it contained 791 persons, males 433 and females 358. It possesses a *patwárkhána,* and a cattle pound.

Bazars occupied by Hindus are situated in both villages and the lands are owned by the Mazaránis and Hindus. There are six gardens covering an area of about 4 acres and containing almond, pomegranate, peach, apricot, apple, plum and fig trees and vines. Vegetables are also grown in these gardens. Annual exports from these two villages are: wool 200 maunds, wheat 3,000 maunds, *juári* 1,500 maunds, and *mung* 200 maunds.

Leghari Kot is the oldest village in Leghári Bárkhán, and was formerly the head quarters of the Leghári Sardár. It consists of a mud fort, built on a low mound, and commanding the surrounding country, which is level and cultivated. It is situated at an elevation of 3,100 feet. Mír Jamál Khán, the grandfather of the present Leghári Sardár Jamál Khán, was born here. Water, obtained from springs which drain into the Káha, is good and plentiful. In 1901, the village contained 116 persons—64 males and 52 females, chiefly Nánda Náhars.

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The other important villages are Vitákri (685), Náhar Kot or Jahándún (369), Dhamáni (553) and Rakhni (643).

Agriculture

About 79 per cent of the cultivated area depends on floods, 10 per cent on rains, and 11 per cent on permanent sources of irrigation, which consist of six streams, twenty-three springs and five wells. The soil is soft and extremely fertile. The greater portion of the irrigated area lies in the Leghári Bárkhán circle.

The principal harvests are the *rabi*, the main crop being wheat, and the *kharíf* which consists of *juári* and minor crops.

A rough estimate of the agricultural stock of the indigenous population, made in 1904, puts the number of camels at 200, donkeys at 485, bullocks and cows at 9,853, sheep and goats at 55,213 and buffaloes at 121. The nomads possessed 51 camels, 56 donkeys, 69 cows and bullocks, and 2,196 sheep and goats.

Communications.

The Barkan-Rakhni section of the Déra Gházi Khán-Pishín road lies in the tahsíl. The other principal routes and tracks are: From Bárkhán to Rakhni 32 miles; to Báladháka 21 miles; to Kohlu (viâ Bibur pass) 22 miles; and thence to Gumbaz 31 miles; to Vitákri 21 miles; to Déra Bugti about 84 miles; and to Chacha about 30 miles; (2) Kohlu to Vitákri over the Már pass, 25 miles; (3) from Bárkhán to Karwada, about 45 miles; (4) from Vitákri to Rakhni, viâ Mat and Chacha, about 51 miles; and (5) from Bárkhán to Kahán in the Marri country, about 47 miles.

BARKHAN TAHSIL.
Administration and staff.

An Extra Assistant Commissioner is in charge of the Bárkhán-Músa Khél Sub-division, with his headquarters at Bárkhán. The tahsíl is divided into six patwáris' circles: Leghári Bárkhán, Chúhar Kot, Isiáni, Bagháo, Rarkan and Rakhni. The staff consists of a tahsíldár, a náib-tahsíldár, one muhásib, one kánúngo and six patwáris. There are 127 *lambardárs* or headmen, 77 levies and 19 police.

Land revenue.

In the Náhar villages and settlements of the Leghári Bárkhán circle, revenue is levied in kind at the rate of one-fifth of the gross produce, one-third of the proceeds being paid to the Leghári chief as superior proprietor of the soil; outside the villages the chief controls the cultivation free of revenue up to March 1907. In the rest of the tahsíl revenue is recovered at the rate of one-sixth of the produce.

The average annual land revenue for the quinquennial period ending with 1903-4 amounted to Rs. 37,592 and included Rs. 4,273 on account of grazing tax. In 1904-5 the total land revenue amounted to Rs. 38,183, of which Rs. 5,246 were contributed by grazing tax. As the supply of perennial water is exiguous, and cultivation is chiefly dependent upon seasonable rainfall, the revenue is liable to considerable fluctuation, as the climatic conditions prove favourable or otherwise.

Miscellaneous, including special products.

Písh (dwarf palm), *panír* (*Withania coagulans*) and *láni* (*Suaeda fruticosa*) are met with in the tahsíl. Carpets and horse trappings are manufactured by some of the inhabitants.

DUKI SUB-DIVISION.

The Duki Sub-division comprises the Duki and Sanjáwi tahsíls, and is in charge of an Extra Assistant Commissioner.

DUKI TAHSIL.
General description.

The Duki tahsil lies in the southern part of the Loralai District, between 29° 53′ and 30° 25′ N., and 86° 12′ and 69° 44′ E., and its elevation varies from 3,000 to 5,000 feet. It covers an area of 1,951 square miles.

The tahsíl is mostly hilly, but contains several large plains. These include the Chamálang valley in the east,

DUKI TAHSIL.

the Thal plain in the middle, and the Rabát plain in the north-west corner. The Thal Chotiáli plateau is a broad alluvial upland flat with a dip from north to south; its greatest length is about 36 miles and greatest width about 14 miles.

Boundaries.

The Duki tahsíl is bounded on the north by the Bori tahsíl, on the east by the Bárkhán tahsíl, on the south by the Kohlu sub-tahsíl and the Marri country, and on the west by the Sháhrig and the Sanjáwi tahsíls.

Hill ranges.

The eastern portion contains several ranges of hills, the highest peak being the Dadar (6,862′), while Siálu 8,112′) lies in the south-west and Ghazghar (9,345′) in the western corner. Some of the finest pasture grounds in eastern Baluchistán are to be found in the Chamálang valley which is visited by many Ghilzai Powindahs during the winter months. On the north of the Thal plain are a series of precipitous but not very lofty hills, which extend from the Siálu range to the Chamálang valley; this range is pierced by two gaps, the Záti Tangi, which gives passage to the Anambár river and the Mánda gorge, which carries off the drainage from the Bagháo and Smállan valleys. At the south-western corner of the plain is seen the lofty Mazári hill bounding the Sémbhar pass on its northern side; further east lie the tumuli-like masses of hills which give their name to the pass and from thence to the Butur hill, extends a more or less continuous mountain barrier, known generally as the Pazha hills. The eastern extremity of the valley is blocked by the Sarlarra hills. The Dabar hill, a rounded tortoise shaped range, seamed from top to base with ravines and cracks, projects in an easterly direction from the Siálu range for about 16 miles, leaving a narrow gap between its eastern end, and a low range which extends to the mass of hills which form the northern boundary of Thal. This opening which unites the Ráhi Duki with the Thal plain is called Garvast.

Drainage system and rivers.

The main drainage of the tahsíl is carried by two hill torrents, the Bagháo stream which enters the valley from the

DUKI TAHSIL.

north-west, through the Mánda gorge, and the Anambár which entering from the north through the Záti Tangi, is joined by the Naréchi and Báladháka streams from the east. Thus four large systems of drainage enter the Thal plain, whence there is, however, only one exit; this lies at the Chotiáli end of the valley, where the four water courses are united, and the resulting out-flow, passing into the Marri hills, receives the name of the Béji river.

A considerable portion of the Thal plain is, however, not drained at all; the water from the northern end of the Sémbhar pass, the Pazha hills, and that portion of the plain which lies to the west of a line drawn south from the Yáru village, collects in an extensive lagoon in the Karáhi plain. This lagoon sometimes covers many square miles of country; after the conclusion of the summer rains, it becomes dried up by evaporation and absorption, and from its area springs forth an abundant crop of excellent grass. The alluvial clay forming the bottom of the Karáhi plain, is of a particularly tenacious character, so much so, that, even when flooded to a depth of 18 inches, the tracks may still be used for traffic.

There are other hill torrents which find their terminus in the Naréchi and Anambár rivers. The silt brought down by the affluents of the former, is very fertilizing. The Thal plain, when viewed from the neighbouring hills, has the appearance of an inland sea, so level and flat is it; it consists of a rich alluvial deposit which, in some places, is tainted with *réh* while in others the soil contains an abundance of salt. The surrounding hills are of limestone or of a hard and, in some cases, coloured clay.

Forests.

There are two reserved forests, the Naréchi and Gadabar, which cover an area of about 16,200 acres. The former is composed of *Populus euphratica* and *Tamarix articulata*, while the latter abounds in *Acacia modesta*. There is also a jungle of *Populus euphratica* and *Tamarix articulata* in the Pazha valley.

Climate, temperature and rainfall.

The climate of Duki is hot in summer, but light snow falls on the high hills in the east and west during the winter months. The average temperature in the morning is about 84° in summer and 56° in winter.

The rainfall is scanty and variable, and averages about 7 inches in a year, the fall being heavier in summer than in winter.

History.

The early history of the tahsíl has been given in Chapter I. The District came into British possession under the Gandamak treaty of 1879, and a British officer was subsequently appointed to the charge of Thal Chotiáli. The tahsíl was transferred from the Thal Chotiáli to the Loralai District, in October 1903.

Population.

In 1905 the tahsíl contained 69 villages, and the total population according to the Census of 1901 was 12,365; 6,731 males and 5,634 females, or 6 persons to the square mile. Of these 11,777 were Muhammadans and 562 Hindus, 4 Christians and 22 others. The indigenous inhabitants, who are Musalmáns of the Sunni sect, and who speak Pashtú, numbered 11,134; males 5,943, females 5,191. The principal tribes represented were: Saiads (509); Khétráns (692); Zarkún Afgháns (1,095); Ustrána Afgháns (515); Spín Taríns (1,351); Tor Taríns (554); Lúni Afghans (2,474); Kákar Afgháns (2,169); and Ghilzai Afgháns (1,400). Besides the Duki civil station and village the principal villages are Shéra and Ismáíl Shahr (1,096), Yáru Shahr (530), Hazár Shahr (413), Chotiáli (327) and Nimki (339).

Among the indigenous population the principal occupation is agriculture combined with flock-owning. The majority of the indigenous inhabitants are cultivating landlords. The Hindus live in Duki, Habíb Kila and Thal. They carry on the retail trade of the tahsíl and also own some lands. The shrine of Nána Sáhib in Chotiáli is held sacred, and is much resorted to by people from various parts of the Sibi, Quetta-Pishín and Loralai Districts and even from Southern Afghánistán.

DUKI TAHSIL.

Agriculture.

More than half of the cultivated area is dependent on floods and rains, and the remainder on permanent sources of irrigation, which consist of 8 streams, 31 *kárézes*, 34 springs and 1 well. The chief irrigated areas are the Duki and the Thal circles.

The soil generally consists of a pale grey loess, while that of the hilly tracts is mixed with gravel. The *rabi* or spring harvest is most important, and consists of barley and wheat, the latter, which forms the staple food of the people, being the chief crop. The autumn harvest is comparatively insignificant and consists of *juári*, maize and rice; *juári* being the chief crop.

A rough estimate of the agricultural stock made in 1904 puts the number of animals at 30 camels, 334 donkeys, 5,995 cows and bullocks, 5,223 sheep and goats and 7 buffaloes. The number of animals in the possession of nomads was 5,072 camels, 400 donkeys and 62,000 sheep and goats.

Communications.

The principal routes are—(1) from Sanjáwi to Duki through the Bagháo valley, 21 miles; (2) from Duki to Loralai by the Raosin valley, 20¼ miles; (3) from Duki to Gumbaz, 28 miles, and thence to Kohlu viâ Zaran, 31 miles, and Gumbaz to Bárkhán viâ Báladháka, 52 miles; (4) Duki to Spintangi by the Sémbhar Pass and Kandi, 55½ miles; (5) from Duki to Sunari by Fakír Narai and Waríkha about 74 miles; (6) from Duki to Mékhtar viâ Taláo *c* 54 miles; (7) from Duki to Wahár by the Záti Tangi, *c* 44 miles, and (8) a footpath over the Kharlak hills from Hosri to Kohlu, *c* 20 miles.

Administration and staff.

The tahsíl is divided into four circles—Duki, Thal, Lúni, and Lákhi—and the staff consists of a tahsíldár, a náib-tahsíldár, a muhásib, a kánúngo and 4 patwáris. There are 73 headmen or *maliks*.

The total number of levies is 76, of whom 60 are mounted. They are distributed in 13 posts, details of which are shown in table XXII, Volume B. The number of police employed in the tahsíl is 13. A detachment of cavalry is located at Gumbaz.

DUKI TAHSIL.

Land revenue.

Revenue is recovered in kind, at the rate of one-sixth of the gross produce. The average annual receipts from 1897-8 to 1901-2 were Rs. 62,515 and included Rs. 5,020 on account of grazing tax. In 1904-5 the revenue amounted to Rs. 44,814, of which Rs. 6,546, or about 14 per cent, were contributed by grazing tax. As the greater part of the tahsíl is under flood cultivation and the supply of perennial water also varies with the fall of rain, the revenue fluctuates considerably as the seasons are favourable or otherwise.

Miscellaneous including special products.

The special products of the tahsíl are: *isapghol* (*Plantago ovata*) and *khamazurae* (*Withania coagulans*). Dwarf palm also grows in the hills and *khár* (crude potash) is made from the *khár* (*Suaeda fruticosa*) and *zahr bútae.* Coal seams exist in the Chamálang valley and near Duki.

Duki, the headquarter station of the tahsíl, was established in 1883-4 and is situated in 30° 11′ N. and 68° 34′ E., at an elevation of about 3,600 feet. The area comprised within civil limits is about 303 acres of which 20 acres are under gardens and 14½ acres under Government buildings. Government is also in possession of 9 *paos* or shares of water from the Duki *Viála* or stream. Duki is the headquarters of the Extra Assistant Commissioner in charge of the Sub-division. It is connected by a cart-road with Harnai through Smállan (59 miles) and by a bridle-path with Spíntangi through the Sémbhar Pass on the Sind-Pishín Railway (55½ miles). Besides the Extra Assistant Commissioner's office, tahsíl, police, levy sowars' quarters and *thána*, the Government buildings are a political rest house, a rest house, a dispensary, the Military Works Services subordinates' quarters, and a post and telegraph office. There is a primary school which was established in October 1899 and named after Colonel Gaisford, the first Assistant Political Agent of Duki and subsequently Political Agent of the Thal Chotiáli District.

Its population in 1901 was 324—males 274, females 50.

Sites in the bazar have, from time to time, been leased for shops on certain conditions. The bazar has half a dozen

DUKI TAHSIL.

shops, a Hindu *dharamsála* built in 1896 and a *masjid* built in 1898. Sanitary arrangements are supervised by the Hospital Assistant in charge of the Civil Dispensary, and drinking water is obtained from wells and from the streams.

There are six Government gardens, which cover an area of about 20 acres. The largest one is attached to the political rest-house and was planted by Colonel, then Captain, Gaisford, Assistant Political Agent; the principal trees are vines, figs, apples, peaches and pomegranates. Different kinds of vegetables are also grown in it.

The European graveyard, a mud walled enclosure, lies about ½ mile, and the old Cantonment buildings about a mile, further along the road to Thal. This cantonment was established in 1884 and was moved to the Bori valley in 1886.

DUKI VILLAGE.

The Duki village, locally known as Ráhi, is situated about two miles to the north of the civil station on the Sanjáwi road, and a path leads from here to Loralai. It consists of three hamlets—Duki, Thatti, and Sáwal Kili—the last named being a Baréch village about a mile to the north of Duki. In 1901 the village had 253 houses and 993 inhabitants—males 522, females 471; the principal tribes being the Taríns (441), Zarkúns (175) and Hindus (127). There are two *masjids* in Duki, one in Thatti and one in Sáwal Kili; while the first named hamlet contains three huts for travellers. There are 18 shops in the village, the property of the Hindu community, who have also acquired some landed property in the vicinity. The headmen are Maliks Ináyat and Mír Khán. Drinking water is obtained from the Duki stream. The village is surrounded by 36 orchards which cover an area of about 25 acres.

SANJAWI SUB-TAHSIL.
General description.

The Sanjawi sub-tahsil, which has an area of 446 square miles, lies in the western part of the Loralai District between 30° 9′ and 30° 28′ N., and 67° 49′ and 68° 35′ E. Much of the tahsíl lies at an unusually high elevation, over 6,000 feet. It is bounded on the north by the Bori tahsil,

on the east by the Duki tahsíl and on the south-west by the Sháhrig tahsíl. The tahsíl is hilly and is intersected by numerous hill torrents, with a few valleys enclosed in the hills. Among these may be mentioned the Bagháo, Smállan, Púi, Wani and Kharáshang valleys. SANJAWI SUB-TAHSIL

The principal hills are—the Murdárghar (7,760′) in the north, the Torghar (7,606′) and the Ghunz Narai (8,980′) in the north-western corner, the Kása Sar (11,103′) in the west, and the western spurs of the Kru hills which separate the Rabát plain of Duki from Bagháo. Hill ranges.

The main drainage of the tahsíl is from west to east and is carried by the Thal river which is made up of various hill torrents. The principal ones are, the Wani which drains the valley of that name, the Mazhai which traverses the Shírín and Púi valleys, and the Maréti which rises in the Ushghára watershed. The united stream, under the name of the Thal river, emerges into Duki through the Bagháo and Mánda Tangi. The drainage and rivers.

The hills in the western portion of the tahsíl are covered with juniper and other minor trees, and contain the Chautér and Karbi Kach Government forests which have an area of about 6 square miles. Forests.

The climate is cold and dry, but pleasant in summer. The seasons are well marked, the spring commencing towards the beginning of April, the summer in June, the autumn in September and the winter in December; snow falls generally in January and February, the temperature sometimes being as low as 25° in winter. No record of rainfall exists, but rains are generally expected in the months of January, February, March, July and August. Climate, temperature and rainfall.

In 1879 a force under General Biddulph was sent with Sir Robert Sandeman to explore the country. A successful engagement took place with the Zhob and Bori Kákars at Bagháo and the cases between the Taríns of Duki and the Dumars and Utmán Khéls, were settled by Sir Robert Sandeman. In consequence, the inhabitants of Sanjáwi were History.

SANJAWI SUB-TAHSIL.

brought under British protection in 1881, and the tract was put under the charge of the Political Agent, Thal Chotiáli. Sanjáwi, along with the Bori tahsíl, was transferred to the Zhob District on the 1st of May 1890 and on its re-transfer to the Thal Chotiáli District in February 1891, it was formed into a sub-tahsíl. It was again transferred to the newly formed District of Loralai in October 1903.

Dispute about the Loara *khushkhába*.

A long standing dispute existed between the Utmán Khéls of Bori and the Dumars of Sanjáwi in regard to the boundary between their lands in the Loara valley. In April 1896 the Assistant Political Agents for Upper Zhob and Thal Chotiáli made a joint enquiry, and, with the consent of the headmen of the Utmán Khéls and Dumars, decided that the path known as the Psára Lár should form the boundary between the lands of the two tribes ; that the grazing was to be free to both parties on either side of the boundary, so long as the cultivation was not interfered with ; that the Dumars were to have the right of cultivating up to the boundary, on their side of the Psára Lár, but that the Utmán Khéls were not to cultivate between the Psára Lár and the present limit of the Kot cultivation.

Population.

In 1905 the Sanjáwi sub-tahsíl contained 40 villages, and the total population, according to the Census of 1901, was 6,866 (3,630 males and 3,236 females) or 15 persons to the square mile. Of these 6,811 were Muhammadans, 52 Hindus and 3 others. The indigenous inhabitants, who are Musalmáns of the Sunni sect and speak Pashtú, numbered 6,751—males 3,548 and females 3,203. The principal tribes represented were—the Kákar Afgháns (4,289) of which 4,251 were Dumars, the Wanéchi section of the Tarín Afgháns (1,380) and Saiads (1,044) including Péchi (810) and Táran (186).

SANJAWI HEAD-QUARTERS.

Sanjawi (population 43) situated about 30°18′ N., 68°19′ E., at an elevation of 5,350 feet, is the headquarter station of the tahsíl. In consists of a military fort built on a low spur of a hill, and is connected by road with the Harnai

railway station, a distance of 38 miles. The fort contains a dispensary, a combined post and telegraph office, a political rest house and quarters occupied by the police, levy and revenue establishment. A garden which supplies vegetables and contains some fruit trees is attached to the fort. There is a *masjid* and a *dharamsála* outside the fort. Drinking water is obtained from the Psára stream. SANJAWI SUB-TAHSIL

Two miles to the west of the fort is the Smállan dâk bungalow, on the Harnai-Loralai road; close to the bungalow is a small bazar, with a levy post and a *dharamsála*, whence a road branches off to Ziárat.

The Sanjáwi village (population 170), situated about a mile to the north of the fort, is a Dumar village and contains 1 shop and 2 *masjids*.

Both the village and the fort lie in a pretty little glen, which is highly cultivated. Small orchards covering an area of 2 acres and 37 poles and containing apricot, pomegranate, almond and pear trees, exist in the village. Vines are trained up many of the trees and myrtle groves are also abundant.

WANI.

Wani, which has a population of 908 (Péchi Saiads 550, Wanéchis 358), lies in the valley of the same name, and has some fine orchards of apricot trees. About 2 miles to the east of Wani are the ruins of three villages known in the time of the Mughals as Seh Kota.

PUI VALLEY

Pui valley, generally known as the Púi-Shírín valley, is a long rich strip of country, well watered, profusely cultivated and containing numbers of fruit trees chiefly apricots. It is separated from the Wani-Chautér valley by a low chain of hills, which form the southern boundary of the former. The Púi Mánda drains the valley, and supplies drinking water which tastes sweet but is not wholesome. The ownership of the valley is divided between the Dumars, Wanéchis and Péchi Saiads; the last named have been exempted from payment of land revenue on certain conditions. The principal villages in the valley are Púi (1,393) and Shírín (731);

SANJAWI SUB-TAHSIL.

the latter is a Wanéchi village while the former belongs to Péchi Saiads and Dumars. Apricot stones, about 300 maunds of wool, about 200 maunds of *ghí* and about 300 maunds of cumin seed are annually exported from the valley.

Other villages of importance are Shinléz (165), Chingi Hangáma (184) and Haryán (202).

Agriculture.

The soil is generally stony and mixed with clay. About 74 per cent of the culturable area is irrigable, the sources of irrigation being 8 streams, 19 *káréзes* and 57 springs. The principal dry crop areas are—Kharáshang, Loara, and the Wuch and Tánda Saláms. The total irrigable area is about 7,673 acres, of which about 4,100 acres are under crops, in an average year. The principal crops are wheat at the *rabi* and maize at the *kharíf* harvest.

A rough estimate of the agricultural stock of the tahsíl made in 1904 puts the number of donkeys at 116, bullocks and cows at 1,060, and sheep and goats at 39,562. The number of animals in the possession of nomads was—camels 107, donkeys 54 and sheep and goats 587.

Communications.

The important road is the Harnai-Fort Sandeman road, which enters the tahsíl at Usbghára Kotal about 22 miles from Harnai, and emerges into the Bori tahsíl near Inzarghat, $10\frac{3}{4}$ miles from Loralai; Sanjáwi being 38 miles from Harnai. It has branches from Smállan to Duki, 23 miles, and to Ziárat viâ Chautér, $40\frac{1}{2}$ miles. The other principal roads and tracks are—(1) Sanjáwi to Kharáshang, 13 miles; (2) Régora on the Ziárat road to Púi and thence to Kowás viâ Ghunz, *c* 60 miles; (3) Chautér to Manra and Kowás viâ Karbi Kach, and Dhre Tangi, *c* 38 miles; (4) Sanjáwi to Chináli by Biáni, *c* 31 miles.

Administration and staff.

The tahsíl is divided into four circles, viz., Bagháo, Sanjáwi, Smállan and Púi; and the staff consists of a náib-tahsíldár, a kánúngo and 3 patwáris. The total number of police is 9 and that of the levies is 59.

Land revenue.

In the early days of the occupation of the tahsíl, the land revenue was levied in kind at one-sixth of the produce. This

system still prevails in the dry crop areas, but lands in irrigated *mahâls* are under a fixed cash assessment for ten years from 1901. The average annual receipts between 1899-1900 to 1903-4 were Rs. 17,386 which included Rs. 2,262 on account of grazing tax. In 1904-5 the total receipts amounted to Rs. 18,843 to which grazing tax contributed Rs. 3,834 or 20 per cent. SANJAWI SUB-TAHSIL.

Special products.

Zíra (cumin seed) grows in some of the hills and *tára míra* (*Eruca sativa*) also grows wild.

BORI TAHSIL. General description.

The Bori tahsil, which has an area of 2,072 square miles, lies in the northern part of the Loralai District between 30° 18′ and 30° 48′ N., and 67° 42′, and 69° 45′ E. It is bounded on the north by the Fort Sandeman, Kila Saifulla and Hindubágh tahsíls, on the west by the Músa Khél tahsíl, on the south by the Duki and Sanjáwi tahsíls, and on the west by the Quetta and Sháhrig tahsíls.

The Bori valley runs east from Uryági to Mékhtar, and is bounded on the north by the Dámánghar range and a succession of parallel ridges running from north-east to south-west, arranged in regular echelon along the north of the valley; on the south by Kru, and its continuation westward to Murdárghar. On the east of the Anambár river, the Sébat range divides the Watagán from the Nálai valley. These are practically continuations of the Bori valley to the north-east. The valley is traversed by a low range of white limestone shale hills, which divide it into two portions.

Hills.

The principal hills in the tahsíl are—Ghund 5,660′, Gadabar 6,639′, Kru 6,261′, Murdárghar 7,730′, and Ghunz Narai 8,980′, in the south; Súrghund 10,609′ in the west; Sébat 5,980′, Dámánghar 6,416′, Churmaghar 6,931′, and Kohár or Tor Khézi 6,602′, from north-east to west. Towering above Dargai, on the south, is the lofty Siázgai crag, the summit of which can only be reached by two very difficult foot tracks. It used to afford an asylum to the inhabitants of the Bori valley when raided by their more powerful neighbours, and small dams have been constructed on the summit, to retain rain water. The hill resembles a fort, and

ORI TAHSIL. is 8,164′ above sea level. It has hill torrents on all sides. There are several caves at various heights. It is difficult to say how these have been made; but the one known as Ráni Chowdh seems to be the handiwork of man. Local tradition says that a Mughal queen used to live here and rule over this part of the country, but no relics worthy of a queenly palace have ever been found. Mill stones are excavated from the cliffs of Siázgai.

ivers. The drainage of the tahsíl is carried to the south by the Anambár river, which is made up of the Sehán from the north-east, the Mara from the north, and the Loralai from the north-west. With these are united numerous smaller hill torrents, some of which have perennial water.

orests. The total area under reserved forests is about 52 square miles, and comprises about 7 square miles of the Gadabar forest which abounds in *Acacia modesta*, and the Súrghund and Nargasi grass reserves covering areas of 6 and 8 square miles respectively; in the former juniper and *Prunus eburnea* are met with. The question of reserving Spíngwar* and Kohár* forests is under consideration (1905).*

limate, emperature nd rainfall. The climate is cool and dry, the temperature is equable and not subject to sudden changes, with the exception that the winter sets in at times rather suddenly. In 1901, the temperature in the shade varied from a minimum of 58° in the morning in April to a maximum of 92° in the middle of day in June. Between October and March the average was about 50° in the morning and about 60° in the middle of the day, the minimum being 40° in February.

The average rainfall during the 12 years ending with 1904 was 8·21 inches, which is about equally divided between summer and winter. The heaviest falls were recorded in March (1·55) and July (1·42). Snow also falls during the winter in the greater part of the tahsíl.

At certain times of the year winds are prevalent, they generally come on in the afternoon and blow, almost invari-

* The Spíngwar and Kohár forests, the area of which is 14 and 16 square miles respectively, were reserved in August 1905.

ably, from west to east. They are accompanied by dust and chiefly occur in June, July and August. In the winter, too, there are occasionally cold winds.

History.

The Bori valley came under British protection in 1884, on the termination of the expedition undertaken against the Kákars, and was occupied in 1886. The valley was added in the same year to the assigned Districts of Sibi, Harnai and Thal Chotiáli, and was formed into a tahsíl in 1888. It was transferred to the Zhob District in 1899, and re-transferred to the Loralai District in October 1903.

Population.

In 1905 the tahsíl contained 161 villages and one town, Loralai, and the total population, according to the Census of 1901, was 18,174 (11,220 males and 6,954 females) or 9 persons to the square mile. Of these, 16,450 were Muhammadans, 1,399 Hindus, 36 Christians and 289 others. The indigenous inhabitants, who are Musalmáns of the Sunni sect and speak Pashtú, numbered 14,161—males 7,784 and females 6,377. There are about 232 domiciled Hindus, chiefly at Chína Alízai and Mékhtar. The principal tribes represented were—Sanzar Khél Kákars (11,662) including Dumars (864), Hamzazais (3,090), Kibzais (1,082), Kudézais (1,091), Utmán Khéls (1,566), Panni Afgháns (663) and Saiads (335). The principal occupation is agriculture combined with flock-owning; Hindus carry on the retail trade. The principal villages are—**Mekhtar** (1,107), Dirgi Kudézai (615), Pathán Kot (383), Wahár Kalán and Wahár Khurd (368) and Shabozai (483).

Agriculture.

The soil of the Bori valley consists of a reddish loam and is highly productive if properly cultivated. The total culturable area is 48,201 acres, of which 15,434 acres are cultivated annually. The irrigated area represents about 75 per cent of the whole. The sources of irrigation are 5 streams, 36 springs and 66 *kárézes*. The principal harvests are the spring and autumn ones, the former being more important, and the main crops are wheat, barley, maize, *juári* and *pálézát*. A rough estimate made in 1904, of the

ORI TAHSIL.

agricultural stock belonging to the permanent inhabitants of the tahsíl, puts the number of donkeys at 200, cows and bullocks at 4,000, and sheep and goats at 35,000, while the nomads possessed 616 donkeys, 1,396 camels, 79 cattle and 12,342 sheep and goats.

ommunica-ons.

Harnai (55¼ miles) is the nearest railway station to Loralai. The two principal roads are—(1) from Tsari Momanrgai (54¾ miles from Pishín) to Saradháka (172¾ miles from Pishín), a portion of the Pishín-Déra Ghází Khán road; (2) from Inzarghat (44½ miles from Harnai to Zara), a portion of the Harnai-Loralai-Fort Sandeman road. Other important routes include the following:—(3) Duki to Loralai viâ the Raosin valley 20¼ miles; (4) Tor to Zara 14½ miles; (5) Tor to Maratangi 12 miles; (6) Wahár to Maratangi 7 miles; (7) Wahár to Zarra 25 miles; (8) Chinjan to Kila Saifulla 28 miles; (9) Chinjan to Hindubágh viâ Tor Tangi 27 miles; (10) Mékhtar village to Murgha Kibzai 20 miles; (11) Loralai to Kila Saifulla viâ the Dholu pass and Akhtarzai c 36 miles; (12) Loralai to Gwál Haidarzai post 39 miles; (13) Mékhtar to Músa Khél viâ Kakal Dámán c 42 miles; (14) Mékhtar to Nimki village (in Duki) viâ Taláo village about 40 miles; (15) Loralai to Púi c 38 miles; (16) Wahár to Samundar Khán village viâ the Anambár about 16 miles; (17) Loralai to Bagháo (Sanjáwi) about 16 miles; and (18) Chináli to Sanjáwi viâ Biáni about 31 miles.

dministra-on and taff.

The tahsíl is divided into 11 patwáris' circles :- Mékhtar, Tor, Zara, Chína Alízai, Sharan Alízai, Aghbarg, Loralai, Lahor, Punga, Sháh Kárêz Utmán Khél and Kach Ahmakzai. The Assistant Political Agent is in charge of the Sub-division, and the tahsíl staff consists of a tahsíldár, 2 náib-tahsíldárs, one muhásib, 4 kánúngos and 11 patwáris. There are 175 *maliks* or headmen. The numbers of the police and levies located in the tahsíl are 42 and 102 respectively. A regiment of Native Infantry and another of Native Cavalry are stationed at Loralai, and a few sowars at Maratangi.

BORI TAHSIL. Land Revenue.

Revenue is recovered at the rate of one-sixth of the gross produce, and grazing tax is also levied. During the quinquennial period ending with 1903-4 the annual average receipts amounted to Rs. 50,946 including Rs. 3,778 on account of grazing tax, while in 1904-5 the receipts were Rs. 43,319 of which Rs. 5,234 were contributed by grazing tax.

Miscellaneous including special products.

Cumin seed is found in the Kru and Ghazgighar hills, in years of good rainfall. *Khamazúrae* (*Withania coagulans*) and *maraghúni* (*Citrullus colocynthis*) are also found.

LORALAI TOWN.

Loralai Town, a military cantonment, and the head-quarter station of the Loralai District, is situated in 30° 22′ N., and 68° 37′ E., at an elevation of 4,700 feet, at the junction of the Harnai-Fort Sandeman and Pishín-Déra Gházi Khán roads, 55¼ miles from the Harnai railway station.

The town is still known to the people of the country as Pathán Kot, from the fact that the site on which it stands belonged to the village of that name. The site was selected by a committee in April 1886, the land being purchased for Rs. 35,302 of which Rs. 1,776 were charged to the Civil and Rs. 33,526 to the Military Department. The provisions of para. 166 of the Indian Articles of War were applied to the cantonment in October 1887, its boundaries were defined in July 1890, and the cantonment was formally established in January 1897 when a Cantonment Magistrate was appointed. A Cantonment Fund was formed in 1887, the expenditure during 1904-5 equalling the receipts, which were Rs. 10,525.

A Bazar Fund was established in 1887 and conservancy cess and octroi were imposed for the first time. One-third of the net receipts from the latter are paid to the cantonment authorities. The revenue and expenditure of the Bazar Fund in 1904-5 were Rs. 13,158 and Rs. 11,734 respectively.

The population in 1901 was 3,561—3,118 males and 443 females—including a regiment of Native Cavalry and one of Native Infantry. The town has a flourishing bazar, with a vegetable and fruit market and 125 shops.

The principal civil buildings are the Political Agent's house, the Assistant Political Agent's house, a dâk bungalow, tahsíl and thána. There is a civil dispensary, a post and telegraph office, a guest house, a primary school, a library and a public garden. There are also three *masjids* and a *dharamsála*. The cantonment is situated about a mile to the south-west of the civil station, and the European cemetery lies within its limits.

The supply of drinking water was formerly obtained from the Urbosín and Sagar *kárézes*, but in 1901 a piped water-supply of 75,000 gallons per diem was provided for the cantonment, at a cost of Rs. 1,18,354, and the supply was extended in 1904 to the civil station and bazar at a cost of Rs. 8,222, of which Rs. 5,722 were paid from Provincial Revenues, and Rs. 2,500 from the Loralai Town Fund. The quantity to be supplied daily to the bazar and civil station is not to exceed 10,000 gallons, to be measured by a meter at the point of off-take. This is charged for at the rate of 4·5 annas per 1,000 gallons (Rs. 1,026 per annum).

'ekhtar.

Mekhtar, which is said to have been founded by Mírak, Hamzazai, is situated in 30° 29′ N., and 69° 22′ E., 49⅛ miles to the east of Loralai, on the Pishín-Déra Gházi Khán road, at an elevation of 4,550 feet. In 1901 it contained 215 houses and 1,107 inhabitants—males 588, females 519. The principal tribe is the Hamzazai, but there are about 20 Arora Hindu families domiciled in the place, who, besides carrying on trade, have acquired some lands also. There are 14 shops and a *dharamsála*. The village has a *patwár-khána*, a levy post (10 men), and a primary school. The rest house, which contains the combined post and telegraph office, is 1¾ miles distant from the village. Octroi is levied, and a sweeper is employed for Government buildings. Drinking water for the village, is obtained from a *káréz* and for the rest house from a well. About 1,000 maunds of wool are annually exported to Karáchi by Násars.

LORALAI GAZETTEER.

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Alphabetical list of common trees and plants of the Loralai District.

Pashtú name.	Khétráni name.	Scientific name.	Species or English name when known.	Locality where found.	Brief remarks as to local uses.
Alsi (P) ...	...	Linum usitatissimum.	Linseed ...	Bori.	
Alu bhukára	Alu bukhára	Prunus bokhariensis.	Plum, blue ...	Kamál Káréz in Duki, and in Bárkhán.	
Amrat ...	...	Pyrus communis	Common pear ...	Sanjáwi, Loralai and Duki.	
Anár ...	Anár ...	Punica granatum	Pomegranate ...	All gardens ...	See also *nargosa*.
Anánga ...	...	Prunus cerasus ...	Wild cherry ...	Sanjáwi and the Bori hills.	
Angúr ...	Drákh or Angúr.	Vitis vinifera ...	Grape ...	All over the District	See also *malavi*.
Arghan ...	...	...	Wild tree ...	The Duki and Sanjáwi hills.	Used as fuel.

Alphabetical list of common trees and plants of the Loralai District—(continued).

Pashtú name.	Khétráni name.	Scientific name.	Species or English name when known.	Locality where found.	Brief remarks as to local uses.
Bádám ...	Bádám ...	Prunus amygdalus (amygdalus communis).	Almond ...	Gardens.	
Barwaz ...	...	Hetoropogon contortus.	Spear grass ...	All over the District	Fodder for sheep, goats and cattle, etc.
Barara ...	Chhip ...	Periploca aphylla	A wild bush ...	All hills ...	Used for fuel.
Barav ...	Gandíl ...	Sorghum halepense, Pers.	A grass ...	All hills ...	Fodder for cattle, sheep and goats, etc.
Bázkatora ...	...	...	A wild plant ...	Duki ...	Leaves are eaten raw as a vegetable.
Bér ...	Bér ...	Zizyphus jujuba...	The Indian jujube	Músa Khél, Duki and Bárkhán.	
Buski ...	...	Lepidium draba...	...	Músa Khél, Sanjáwi and Bori.	Used as a vegetable, also in spring as fodder for cattle and horses.
Chalghoza or zanghozé.	...	Pinus gerardiana.	Edible pine ...	Torghar in Músa Khél	Fruit is eaten.
Chibhar ...	Chibar ...	Cucumis ...	Small melon ...	Duki and Bárkhán lands.	Fruit is eaten raw or cooked as a vegetable.

Chimjanbútae	...	Nepeta glomerulosa.	...	Sanjáwi ...	Fodder for sheep and goats.
Dánawál shín-bútae.	...	Digera arvensis...	...	Bori Tahsíl ...	Used as a vegetable, also as fodder for cattle, sheep, goats, etc.
Darbhang ...	...	...	...	Duki hills ...	A drug for inducing perspiration.
Dub ...	...	...	...	A grass ...	Fodder for sheep, goats, cattle, etc.
Gandérae ...	Kaníra ...	Nerium odorum...	Poisonous bush ...	Everywhere.	
...	Gangi ...	...	A wild tree ...	Bárkhán ...	Fruit is eaten.
Gangu ...	...	Orthonnopsis intermedia.	Wild bush ...	...	An infusion of the leaves is used for washing children in cases of heat. Twigs used as fuel.
Gargol ...	Gargol ...	Zizyphus oxyphylla.	Wild tree ...	Músa Khél, Bárkhán and Duki hills.	Fruit eaten. Twigs used as fuel.
Garwa ...	...	...	A wild plant ...	Bori Tahsíl ...	Seeds are eaten raw.
Gázara ...	...	...	Wild bush ...	...	Fodder for cattle, sheep, goats and camels.
Gázara-aghzae	...	...	Do. ...	...	Fodder for camels.
Ghalmae ...	...	Anabasis multiflora.	...	Músa Khél and Bori...	Fodder for camels and goats, also used in lieu of soap.
Gharoturshai	...	...	...	Duki hills ...	Eaten raw by the people.
Ghaz ...	Lái ...	Tamarix orientalis	Tamarisk ...	All over the District	Used for fuel and making wattle.

Alphabetical list of common trees and plants of the Loralai District—(continued).

Pashtú name.	Khétráni name.	Scientific name.	Species or English name when known.	Locality where found.	Brief remarks as to local uses.
Ghozéra ...	...	Sophora griffithii	Wild bush ...	...	Used for fuel.
Ghundidár ...	...	...	A wild plant ...	Bori Tahsíl ...	Fodder for goats.
Ghwayae-zambar.	...	...	Do. ...	Do. ...	Fodder for sheep, goats, cattle, etc., also eaten raw by the people.
Hélanae ...	...	...	Wild tree ...	Músa Khél ...	Fruit is eaten.
Hália ...	Hália ...	Asparagus officinalis.	...	Duki and Bárkhán Tahsíls.	Used as a vegetable.
Inzar ...	Khábora ...	Ficus carica ...	Fig ...	Gardens; also wild.	
Isapghol ...	Isapghol ...	Plantago ovata ...	...	Duki and Bárkhán Tahsíls.	Seeds are used as a medicine for dysentery.
Jámboi ...	...	Brassica nigra ...	Black mustard ...	All over the District especially in Sanjáwi.	The leaves are eaten raw by the people.
Kamín angúr (Mako).	Kauri drákh	Solanam nigrum	...	All over the District	A remedy for fever and dysentery.
...	Kandi ...	Prosopis spicigera	...	Duki and Bárkhán ...	Timber and fuel.

Kárózgae ...	...	...	...	Bori lands ...	Seeds eaten by the people, also fodder for cattle.
Karkanra ...	Kukar-bér ...	*Zizyphus nummularia.*	...	All over the District	Leaves make good fodder for cattle, etc. Fruit eaten.
Karpola ...	...	Teucrium stocksianum.	...	Sanjáwi Tahsíl ...	A drug for fever.
Káshin ...	...	Cichorium intybus	The wild or Indian Endive.	All over the District	The roots are soaked in water overnight and the infusion is drunk in the morning, in cases of heat.
Khabra ...	...	...	...	Duki Tahsíl ...	A drug for fever.
Khamazúrae or Makhazúrae.	Khamzúr ...	Withania Coagulans.	The cheese maker or Indian rennet.	All over the District	Seed used for making cheese.
Khár ...	Khár ...	Suæda fruticosa	Barilla ...	Duki, Músa Khél and Bárkhán.	Used for making crude potash.
Khár ghinae...	Lái dálan ...	Orobanche indica	...	Ditto ...	Injurious to tobacco plants.
Khátol ...	...	Tulipa stellata ...	Wild tulip ...	Spring wild flower ...	
Khazal ...	...	...	Wild grass ...	Bori and Músa Khél Tahsils.	Fodder for cattle, sheep and goats, etc.
Khokhai ...	Sobah ...	Allium sphærocephalum.	Wild garlic ...	Found throughout the District.	Used as a vegetable.
Khoryás ...	...	...	A grass ...	Músa Khél and Bori...	Fodder for sheep, goats, cattle, etc.

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Alphabetical list of common trees and plants of the Loralai District—(continued).

Pashtú name.	Khétráni name.	Scientific name.	Species or English name when known.	Locality where found.	Brief remarks as to local uses.
Khumbi ...	Khambi ...	...	Mushroom ...	Duki and Bárkhán Tahsíls.	Eaten by the people.
Khwázha-wa-lani.	...	Pimpinella anisum.	Aniseed ...	Chína Alízai in Bori Tahsíl.	A drug.
Khwázha-walgi.	...	...	A wild plant ...	Sanjáwi Tahsíl ...	The infusion is used in cases of heat.
Khwázhki ...	...	...	A wild bush ...	Sanjáwi hills ...	The ashes are mixed with *ghí* and used in cases of boils.
Komár ...	...	...	...	Ditto.	
Kumála ...	...	...	A grass ...	Bori and Sanjáwi hills	Fodder for horses and sheep.
Kuragh ...	...	Centaurea cyanus	...	Wheat fields ...	Drug for killing worms.
Kursaka ...	...	...	A wild plant ...	All over the District	Roots are eaten raw by the people.
Lawanae Asu	...	Convolvulus spinosus.	Ditto ...	Bori Tahsíl ...	Fodder for cattle, sheep and goats, etc. The leaves are eaten raw by the people.
Léghúnae ...	...	Daphne oleoides, Schreb.	Poisonous wild bush.	All hills.	

Lúkha ...	...	Typha angustifolia.	...	Ditto ...	Fodder for horses, also used for roofing huts.
Machal ...	...	...	A wild plant ...	Bori Tahsíl ...	The leaves are pounded and applied to wounds.
Mákhae ...	...	Caragana ...	...	All hills ...	Used as fuel; the flowers eaten raw.
Malavi ...	Drákh ...	Vitis vinifera ...	Grape ...	All over the District	See also *angúr*.
Manra ...	...	Pyrus malus ...	Apple ...	Garden	See also *séb*.
Mánri ...	...	...	Wild tree ...	Músa Khél ...	Fruit eaten.
Mara ...	...	Myrtus communis	Myrtle ...	Sanjáwi Tahsíl, Barnimae and Tor villages in Bori Tahsíl.	The fruit is used as a medicine to assist digestion.
Mara-ghúngi	Kaura Garonba.	Citrullus colocynthis.	...	All over the District	Fodder for sheep, goats and camels. Seed used as a drug. Also given to animals.
Maréri ...	Maréri ...	Portulaca oleracea.	The common Indian Purslane.	*Juári* fields ...	Used as a vegetable.
Marmandi ...	Marmandi ...	Vitex negundo ...	...	Bori and Bárkhán Tahsíls.	Fodder for cattle, also a drug for inducing perspiration.
Mashkanr ...	Khán ...	...	A grass ...	Everywhere ...	Fodder for sheep, cattle, goats, etc.
Maurae ...	...	Zizyphora clinopodioides.	...	Bori and Sanjáwi hills	Used as a drug for typhus fever.

Alphabetical list of common trees and plants of the Loralai District—(continued).

Pashtú name.	Khétráni name.	Scientific name.	Species or English name when known.	Locality where found.	Brief remarks as to local uses.
Mazari ...	Dhora ...	Nannorhops ritchieana.	Dwarf palm ...	Músa Khél, Duki and Bárkhán Tahsíls.	Mats are made from it and the roots and flowers used as food in famine.
Méhal ...	...	Citrullus vulgaris, fistulosus.	Wild *tinda*, a species of pumpkin.	Duki and Bárkhán Tahsíls.	Used as a vegetable.
Mulai ...	...	Eruca sativa ...	Oil seed ...	All over the District	Leaves eaten raw by people.
Nal ...	Nar ...	Phragmites communis.	Reed ...	Everywhere ...	Fodder for cattle, sheep and goats, and also used for roofing huts.
Nargosa ...	Anár ...	Punica granatum	Wild pomegranate.	Bori and Sanjáwi hills	See also *anár*.
Nashtar ...	...	Pinus excelsa ...	Pine ...	Torghar in Músa Khél	Timber and fuel.
Páh ...	...	...	A kind of grass...	All hills ...	Grass for cattle, sheep, goats and horses, etc.
Palosa ...	Phula ...	Acacia modesta...	...	Bori, Duki, Músa Khél and Bárkhán.	Timber good; the gum is also used.
Pamangi ...	Pípi ...	Boucerosia Aucheriana.	...	Músa Khél, Duki, Bárkhán and Bori hills.	Used as a vegetable.

Péwarki or *Pérwatki.*	*Naktror* ...	*Cocculus leæba* ...	...	*All over the District...*	*Fodder for cattle, sheep and goats, etc.*
Pángi wálae butae.	...	*Heliotropium eichwaldi.*	...	*In Wahár circle* ...	*Ditto.*
Parkae ...	...	...	A wild bush ...	Músa Khél and Bori...	Fodder for sheep, goats and camels; also used in lieu of soap.
Paresiya washán (P.)	...	Adiantum venustum.	A fern ...	Duki Tahsíl.	
Pasta-wana ...	...	Grewia oppositifolia.	...	Bori, Sanjáwi and Músa Khél.	Fuel.
Plawan ...	...	Salvadora oleoides	...	Drug circle ...	Timber and fuel. Fruit eaten.
Puzkhán ...	...	...	A wild plant ...	Bori, Sanjáwi and Músa Khél.	Drug for toothache.
...	Raga ...	...	A wild tree ...	Bárkhán ...	Fruit eaten. Fuel.
Raghbolae ...	...	Peucedanum Sp.	...	Bori and Sanjáwi hills	The plant is eaten raw by the people.
Rakhpatti ...	...	Panicum colonum	...	Ditto ...	Roots and leaves eaten raw by the people.
Raudewán ...	Mizgi ...	...	Wild tree ...	All over the District...	Timber and fuel.
Sába ...	Paba ...	Stipa capillata ...	Grass ...	Ditto ...	Grass for cattle, sheep and goats, etc.
Sargarae ...	Púi ...	Cymbopogon iwarancusa.	Grass ...	Ditto ...	Fodder for horses, cattle, sheep and goats.

Alphabetical list of common trees and plants of the Loralai District—(continued).

Pashtú name.	Khétráni name.	Scientific name.	Species or English name when known.	Locality where found.	Brief remarks as to local uses.
Sarghashae ...	Sar ...	Saccharum ciliare	...	A kind of grass found in hills.	Fodder for cattle, sheep and goats, etc.
Séb ...	Séb ...	Pyrus malus ...	Apple ...	Gardens ...	See also *manra*.
Shaftálu ...	...	Prunus persica ...	Peach ...	Gardens.	
Shamshobae...	...	Mentha sylvestris	Peppermint ...	All over the District	Fodder for sheep, goats, donkeys and camels.
Shang ...	...	Fraxinus xanthoxyloides.	Ash ...	Bori and Sanjáwi ...	Timber and fuel.
Shézgi ...	...	Eremurus aurantiacus.	...	Bori and Sanjáwi hills	Eaten cooked as a vegetable.
Shínbútae ...	...	...	A wild plant ...	Bori Tahsíl ...	Used as a purgative.
Shorae ...	Shora ...	Haloxylon griffithii.	Barilla plant ...	All over the District	Used as fuel; also for curing skins.
Showan ...	Kahu ...	Olea cuspidata ...	Olive ...	Wild tree ...	Fruit is eaten by the people and the wood is used as fuel.
Shrawan ...	Jauntar ...	Pistacia cabulica	Pistachio nut tree	All hills ...	See *wanna*.

Sinzalai ...	*Sinjli* ...	*Elæagnus hortensis.*	Trebizond date or Bohemian olive.	Sanjáwi, Bori and Bárkhán.	Fruit eaten dry; good timber.
Sissae ...	...	...	A wild bush ...	Bori Tahsíl ...	Fodder for sheep and goats; also used as fuel.
Sizak ...	...	...	A wild plant ...	Duki hills ...	Leaves eaten raw by the people.
Skarwandi ...	...	Tribulus terrestris	Wild bush ...	Bori Tahsíl ...	Fodder for cattle, sheep, goats, etc. The seed is eaten by the people.
Spalmai ...	Ak ...	Calotropis gigantea.	...	All over the District	Fodder for goats.
Spánda ...	Harmal ...	Peganum harmala	Garden Rue ...	Everywhere ...	Seed used as a drug.
Spédár ...	Spédár ...	Populus alba ...	The alb or white poplar.	All over the District	Timber.
Spéra-bútae...	...	...	A wild plant ...	Ditto ...	A drug for fever.
Spérkai ...	Jwáin ...	Carum copticum	...	Mékhtar circle in Bori and Bárkhán.	A drug.
Staghnár ...	...	...	A species of asafœtida.	Bori and Sanjáwi hills	The outer skins of the stalks are burnt in hot ashes and eaten.
Srawangi ...	...	...	Wild tree ...	All over the District	Leaves used for dyeing.
Surai ...	...	Rosa lacerans ...	Wild bush ...	Bori and Sanjáwi hills	Wild rose; also used as fuel.
Sursánda ...	...	Hymenocrater sessilifolius.	...	Súrghund hills ...	A cooling infusion made from the leaves is given to children.

Alphabetical list of common trees and plants of the Loralai District—(continued).

Pashtú name.	Khétráni name.	Scientific name.	Species or English name when known.	Locality where found.	Brief remarks as to local uses.
...	Sutkal ...	...	A wild tree ...	Bárkhán ...	Fruit eaten.
Tágha ...	...	...	Wild tree ...	Sanjáwi and Músa Khél hills.	Fuel.
...	Tákoré ...	...	A wild plant ...	Bárkhán ...	Fruit eaten.
Táli ...	Táli ...	Dalbergia sissoo	The Sissu ...	Bárkhán, Drug, Bori and Músa Khél.	Timber ...
Tamand ...	...	...	A wild bush ...	Bori and Músa Khél Tahsíls.	Used in lieu of soap; also fodder for cattle, sheep and goats, etc.
Tátúka ...	...	Scorzonera Sp. ...	...	Hills ...	Roots eaten by the people.
Tirkha ...	...	Artemisia ...	...	A wild bush found in hills.	Fodder for sheep, goats and donkeys; also used as fuel.
Tút ...	...	Morus ...	Mulberry ...	Gardens ...	
Ubashta ...	...	Juniperus excelsa	Juniper ...	Sanjáwi Tahsíl and Súrghund hills.	Timber and fuel.
Umán ...	Um ...	Ephedra pachyclada.	...	Wild bush found in hills.	The twigs are used for tanning *mashk* leather; also as fuel. Ashes mixed with tobacco for chewing.

Urgalam ...	*Sinwár* ...	*Rhazya stricta* ...	...	All over the District	Leaves form a cooling drink for children.
Uzhgai ...	...	...	Wild tree ...	All hills ...	Fruit eaten; fuel.
Ushunár ...	...	Ferula oopada ...	Variety of asafœtida.	Bori and Sanjáwi hills	Eaten like *staghnár*.
...	Wal ...	...	A wild plant ...	Bárkhán ...	Fodder for sheep, goats and camels.
Wanna ...	Jauntar ...	Pistacia cabulica	Pistachio nut tree	All hills ...	Fruit much prized by the people. Excellent fuel.
Washta ...	...	Stipa pennata ...	A grass ...	Bori hills ...	Fodder for cattle, goats and horses.
Wízha ...	...	...	Ditto ...	All hills ...	Fodder for cattle, sheep, goats, horses, etc.
Wulla ...	Béd ...	Salix ...	Willow ...	Common everywhere	Timber and fuel.
Zahar-bútae...	...	Haloxylon (similar to H. Salicornicum).	...	Bori and Duki Tahsíls	Used in lieu of soap.
Zardálu .	...	Prunus Armeniaca.	Apricot ...	Gardens.	
Zarga ...	...	Prunus eburnea...	Small wild almond	Common everywhere	Fruit is eaten; gum also used.
Zawal ...	...	Achillea santolina	...	Common grass ...	Flowers form a cooling drink for children. Fodder for sheep and goats.

Alphabetical list of common trees and plants of the Loralai District—(concluded).

Pashtú name.	Khétráni name.	Scientific name.	Species or English name when known.	Locality where found.	Brief remarks as to local uses.
Zharaghzae ...	...	...	A wild plant ...	Bori Tahsíl ...	A drug for fever.
Zíra ...	...	Cuminum cyminum.	Cumin ...	Bori and Sanjáwi hills	A condiment.
Zmai ...	Láni ..	Suæda fruticosa	...	Bori and Músa Khél Tahsíls.	Fodder for camels, also used for making crude potash.
Zoz ...	Jánwán ..	Alhagi camelorum.	Camel thorn ...	Everywhere ...	Fodder for camels.
Zralg ...	...	Berberis vulgaris.	True barberry ...	Higher hills ...	Roots boiled in water and used for tanning skins. Decoction also given to human beings and cattle in cases of internal injuries.

APPENDIX II.

Translation of the settlement made between Sardar Shahbaz Khan and Maliks of Zhob, Bori, and Musa Khel, and the British Government—1884.

1.—That we, Sardár Shahbáz Khán, Maliks Dost Muhammad, Tájudín and Muhammad Mír, Jalálzai, Jogízais as well as all other Maliks of Zhob, Bori and Músa Khél, now present execute this agreement in token of our submission to the power and supremacy of the British Government, and we engage to prevent our tribesmen from raiding or committing crimes in British territory. Should any tribesman commit a raid or an outrage we will seize him and make him over to the British authorities.

2.—That we Sardárs and Chiefs of Zhob engage to prevent the return to Zhob of Sháh Jehán Sardár Khail, excepting with the sanction of the British Government, after Sháh Jehán and the other chiefs who have fled with him have made full submission to the British Government, and on condition that such a request shall only be made by Sardár Shahbáz Khán and a majority of the Council (jirga) of the headmen of Zhob.

3.—That we Maliks of Zhob and Bori agree to pay within three months from this date a fine of Rs. 20,000 inflicted on us as a punishment for all attacks or offences committed by us against the British Government or its subjects.

4.—That we the Músa Khél Maliks agree to pay within three months a fine of Rs. 2,000 in condonement of the outrages committed by us in the raid on the coolies, and all other offences committed in British territory. Further that we will within this time produce Maliks Baik Khán and Wazír Khán to tender their submission.

5.—That we give the following men with two Motabars of the Sardár Khail, approved of by the Agent to the Governor-General for Baluchistán, as hostages for the fulfilment of these terms; and they will remain present with the Government

officers at Thal Chotiáli until the amount of the above fine is paid by us, or as long as the British Government consider their presence to be necessary.

6.—It is distinctly agreed to by us, Sardárs and assembled Chiefs, that the British Government has the right to protect the railway line and trade routes by placing troops in Bori or in any way that may be deemed desirable by the British Government. Should it be finally decided to occupy Bori, all the Sardárs and Maliks will recognise the justice of the measure by becoming the faithful and loyal subjects of the British Government.

7.—If the Government of India consider it necessary, in order to secure the satisfactory fulfilment of the terms now settled, to place troops in Zhob or elsewhere, they have the right to do so.

8.—The request of the Zhob, Bori, and Músa Khél tribes, that the British Government should take measures to protect the trade routes in their countries and settle internal quarrels and feuds between Sardárs and Chiefs in the same manner as they do now as regards the Maris, Bugtis, Khétráns, Kákars, and other tribes of the Thal Chotiáli District, will be forwarded by the Governor-General's Agent for Baluchistán for the consideration and orders of the Government of India.

Seal of Sardár Shahbáz Khán, Jalálzai, Jogízai.

(Sd.) Dost Muhammd Khán, Jalálzai.
(,,) Tájudín, Jalálzai.
(,,) Pista Khán, Alikhél.
(,,) Kamál Khán ,,
(,,) Saujar Khán ,,
(,,) Sultán Muhammad, Alízai.
(,,) Hyder, Akhterzai.
(,,) Zaríf ,,
(,,) Saujar Khán, Dádzai.
(,,) Ramzán, Músazai.
(,,) Dádgul ,,
(,,) Kowra, Dostzai.
(,,) Muto.

(Sd.) Mullá Khurdil, Mírzai.
(„) Jehán, Mírzai.
(„) Machak „
(„) Sikandar „
(„) Gharíbján „
(„) Dinat „
(„) Mullá Dalér „
(„) Daulat Khán, Khwadádzai.
(„) Jangi Khán „
(„) Khalik „
(„) Mullá Hassan „
(„) Mullá Manik „
(„) Tahmás Khán, Sargari.
(„) Shah Hussan „
(„) Khushdil Khán, Khwadádzai.
(„) Mír Alam Khán, Urgassi.
(„) Gawar Khán, Pakkazai.
(„) Gandak Khán „
(„) Shádi Khán „
(„) Adam Khán „
(„) Lukmán Khán „
(„) Mír Muhammad „
(„) Karímdád, Ismáílzai.
(„) Sultán Muhammad, Pakkazai.
(„) Bishárat Khán, Ismáílzai
(„) Umar Khán, Pakkazai.
(„) Aslam Khán, Gorazai.
(„) Karím Khán „
(„) Bangar Khán, Kibzai.
(„) Mían Khán „
(„) Karam Khán „
(„) Mullá Daha „
(„) Sanjar Khán, Músa Khél.
(„) Hassan Khán „
(„) Gul Mír Khán „
(„) Nádir Khán „
(„) Jangi Khán, Kibzai.
(„) Samand Khán „

(Sd.) Khána Kudezai, Motibar of Bori.
(,,) Pahalwán, Motibar, Bori.
(,,) Ali Khán, Shahbozai.
(,,) Azím Khán, Alízai.
(,,) Lundak Khán, Khiderzai.
(,,) Háji, Utmán Khél.
(,,) Kálákhán ,,

CAMP DULAI: *The* 22*nd November* 1884.	(Sd.) R. G. SANDEMAN, PRESIDENT, *Agent to the Governor-General.*

APPENDIX III.

List of agricultural implements in use in the Loralai District.

Name in Pashtú	Name in Khétráni.	Explanation.
Aghérae (azghundae)	Gáté	Wedges in the yoke.
Ara	Dátri, Lasi (Hasni).	A small sickle.
Chárshákha (chár-gháshki.)	Trángal ...	A four-pronged fork, used for winnowing.
Chughul	...	A sieve with holes larger than those of the ordinary sieve called *raghbél* and *parwazae*.
Dal	Dhal ...	A wooden spade worked by two men with a rope and used for making small embankments.
Dosháklia (dowa khulghi) (dowa gháshki) (tránguli and biángi).	Nehin ...	A two-pronged fork.
Drapae	Karáhi ...	A wooden spade for winnowing grain.
Ghasae (ghára, lahri, nár).	Haló ...	The shaft of the plough.
Ghoidal (Khál, Kón) ...	Kón ...	A plank harrow.
Hal (Yivgi and Yivi)...	Hal ...	A plough.
Kahai ...	Kahai ...	A hoe.
Karáh (Bélcha) ...	Karoz ...	A spade.
Lor	Lor ...	A sickle.
Lutmár (Músa Khél)...	...	A wooden mallet for crushing clods.
Mála ...	...	A wooden log used as a clod crusher.
Mutanak (mutwán, hal mushtae, and halrai).	Mutha ...	A plough handle.

List of agricultural implements in use in the Loralai District—(concluded).

Name in Pashtú.	Name in Khétráni.	Explanation.
Nálai	Nar ...	A drill or hollow tube with a wooden cup, used for sowing.
Pára (Dalai) ...	Pahora ...	A rake.
Raghbél (parwazae) (charúnae).	Parún	A sieve.
Rahanra (Kunrán) ...	Hal chohán...	A plough share.
Rambae	Ramba ...	A short spud.
Spára pahál) ...	Phal ...	The shoe of the plough.
Tabar	Kohári ...	An axe.
Tsaj or Chaj (sazlai) ...	Chhaj	A winnowing fan.
Tsapanrae (pat) ...	Chappar ...	A wedge in the plough.
Zagh (Panjálai) ...	Panjáli ...	A yoke.

APPENDIX IV.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District.

Term in Pashtú.	Term in Khétráni.	Explanation.
Ahad	Olag ...	Wages in kind paid to an artizan. See also *gata* and *kalang*.
Alang (Bori) ...	Wár ...	A sheep pen. See also *kér*, *shpalghalae* and *shpol*.
Alor	Kutta alhor	The refuse of fodder after it has been eaten by cattle.
Alwoi or Auloi ...	Abhún ...	Half ripe corn. Also corn parched.
Ambár	Páh ...	Manure. Also a granary.
Ambárchi ...	Rakha ...	A servant engaged to watch the granaries.
Ambár khána ...	Khilán ...	A granary.
Angúro bágh ...	Darákhen-da-bágh.	A vineyard. See also *malavi bágh*.
Asówán or Sówán ...	...	A miller.
Ashar or Hashar ...	Hashar ...	Borrowed labour for agricultural purposes.
Ashar bánrae or Hashar garae.	Háshri ...	Labourers obtained under the *ashar* system.
Atana or Atjana mzakka (Thal).	Matti ...	Land which contains silt or *mat*. See also *mattana* or *matjana mzakka*.
Awandae (Duki) ...	Bandh ...	An earthwork thrown across a stream. See also *wand*.
Bachak ...	Tijár ...	The second crop of maize which does not ripen.
...	Baché or Gaché.	The off-shoots of a tree.
Bádár or Kháwand (Bori).	Zamíndár, Goái.	A land-owner (as distinguished from *kashae*).

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Bádi Kawal ...	Wák dena ...	To winnow the grain with the *chár shákha.* See also *durawal, lawastal* and *pákawal.*
Badríza	...	A leather covered rope with which the lower part of the apertures in the yoke is secured. See also *wurzu.*
Bágh	Bágh ...	Garden. See also *jár.*
Bain (Duki) ...	Bain and Chhér.	Cleaning water channels in spring. See *chár.*
Bambal (Duki and Wanéchi).	...	Maize flowers. See also *katskhulae, potsakai, spalmai* and *tsakhwalae.*
Band ...	Lath, bandh	An embankment.
Bandak (Bori) ...	...	Wheat and barley when knots have appeared in the stalk. See also *karak.*
Bandobast ...	Kachh ...	A settlement.
Bára (Sanjáwi and Bori).	...	A stone embankment or wall made to protect the fields from encroachment by hill torrents. See also *muzdak.*
Barazar	...	To bring home sheep and goats in the morning to be milked.
Bardára bágh ...	...	An orchard containing fruit trees.
Bardára darakhta ...	...	All fruit trees except vines.
Barongai (Músa Khél)	Las, Sang ...	A bunch of grapes. See *zhangura.*
Bashakál ...	Sokál ...	The rainy season. See also *shakál.*
Batái	Batái ...	The division of a crop by allotting portions of the grain heap.
Bazgar	Bháiwál Ráhak.	A tenant (as distinguished from *bádár*). See also *dehgán* and *kashae.*

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Bégár	Vigár ...	Forced labour.
Bél (Sanjáwi) ...	Parnála ...	A wooden aqueduct. See also *tarnáwa* or *tarnob*.
Biján (Sanjáwi) ...	...	The melon seed. See *zanrae*.
Biji (Duki) ...	...	A wheat crop sown in ground which has not been previously ploughed.
Bobazh ...	Páchhéri ...	Crops sown late. See also *pásėra* and *tandae*.
Bochar	...	Ears of maize from which the grain has been extracted. See also *gangri*.
Boh (Thal) ...	Boh ...	Chopped straw (*bhúsa*). See also *pror*.
Bohál	Bohál ...	Rent paid in kind by a tenant to landlord. See also *lékha* and *topa*.
Bohalla	...	A light shower of rain during spring.
Busae or buzhae ...	Búta ...	Sods of turf.
Chao	...	An open water channel.
Chár	Chhér, bain...	Cleaning water channels in spring. See *bain*.
Charai	Chari ...	The trench between two ridges, in a melon field. See *joa*.
Chilomba or chilonda	Khumbén ...	A sling generally used for driving birds away from the crops. See also *kuchlomba* and *shlonza*.
Chína	...	A spring.
Chinjan	Kénhwán ...	Affected by *chinjae* insects. Thus *chinjan khatakae*, a melon affected by insects.
Dab	Dhand ...	Stagnant water. See also *danda*, *kuram* and *pandioba*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Dalai	Sillán, gáh ...	A heap of threshed grain before the corn is separated. See also *darmand*.
Dalnae (Duki) ...	...	A hand mill for husking rice. See also *garat*.
Dam	...	Water running slowly owing to a block in a *káréz*. See also *mat*.
Danda (Wanéchi) ...	...	Stagnant water. See also *dab*, *kuram* and *pandioba*.
Dáng	Qalam ...	Cutting.
Darmand	...	A heap of threshed grain before the corn is separated. See also *dalai*.
Darwazh or Durwazh	Daresh, Butt	A cut made by flock-owners in their kids' ears to serve as a distinguishing mark. Also a sheep or goat set apart for a sacrifice at a shrine. See also *partsan*.
Dehgán (Duki) ...	...	A tenant (as distinguished from *bádár* or *kháwand*). See also *bazgar* and *kashae*.
Dirharae (Duki) ...	Lái ...	Wages paid to the reapers. See also *lawai*.
Dirba (Lúni) ...	Uriági ...	A shepherd who tends young kids. See also *lérba* and *rébún*.
Doa halíza ...	Beháli ...	Second ploughing.
Dobgarae	Ahár ...	The *rabi* or spring crop.
Domandae (Músa Khél)	Phia ...	Second watering of crops. See also *pehâe*, *prepánr* and *swalla*.
Drémandae (Músa Khél)	...	Third watering of crops.
Dub or Dup (Duki) ...	...	Manure. See also *sarrah*.
Dud	Dhéda, Tarkla	Wheat or barley, the ears of which have formed but are not visible. See also *gadar*.
Dughál (Wanéchi) or Dukál.	Dukál ...	Drought, also famine. See also *kákhti*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Durand or Durmand ...	Khillán, Pír	A threshing floor.
Durand dág (Sanjáwi)	...	A portion of grain, taken out of the main heap for wages to artizans and for village expenses.
Dúrawal	Wákdena ...	To winnow. See also *bádi kawal*, *lawastal* and *pákawal*.
Gadai or Gédai ...	Abhún, Abhutti	Half ripe corn; also bunches of ears of corn.
Gadar (Bori) ...	...	Wheat or barley, the ears of which have formed but before the corn is visible. See also *dud*.
Galai	...	A tunnel connecting the wells of a *káréz*.
Ganálai	...	Green wheat and barley cut for fodder. See also *kasíl*, *khíd* and *mushk*.
Gandakar (Duki) or Gandál.	...	Chaff. See also *gazára*.
Gandasar or Urmaisar	...	First crop of lucerne.
Gangri	...	Ears of maize from which the corn has been extracted. See also *bochar*.
Garat or Garsi (Thal) ...	...	A hand mill for husking rice. See also *dalnae*.
Gata (Wanéchi) ...	...	Wages in kind paid to an artizan. See also *ahad* and *kalang*.
Gawanda or Gonda (Bori).	Ghunj ...	A bullock sack. See also *zola*.
Gazára	...	Chaff. See also *gandakar* and *gandál*.
Ghalebáni (Sanjáwi). or Ghalína (Músa Khél).	...	A flock composed of sheep and goats belonging to several persons.
Gham	...	Government revenue demand. See also *mahsúl*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Ghamlándi or Ghamwála mzakka.	...	Revenue paying land.
Gharak or Gudae ...	Kundhi, Híjak.	A skin used for churning milk.
Gharot (Wanéchi) ...	...	Buds. See *ghutai*.
Ghínd	Kháí ...	A large bullock sack. See also *ghúndae*.
Ghoba	...	A cowherd.
Ghobal	Gáh, Wal ...	To thresh. See also *zúnga*.
Ghobal mazhwae ...	...	The pole in the centre of the threshing floor round which bullocks revolve. See also *latsa*.
Ghoimand (Bori and Músa Khél).	...	Ploughing a third time in land to be prepared for the rice crop.
Ghojil	...	The place, in a house or tent, set apart for bullocks.
Ghúndae	...	A large bullock sack. See also *ghínd*.
Ghutai	...	Buds. See also *gharot*.
Ghwa	Gaún ...	A cow.
Ghwayae	Dhagga, Dánd.	A bullock. See also *lézhda*.
Ghwazhúna (Músa Khél).	...	The first few plants which appear in a field. See *tsárae*.
Grift or Graut ...	Muth ...	A handful of cut crop.
Gudám or Gurdám ...	...	Supplies collected for Government officials. See also *sursát*.
Gul	Gul ...	The state of a crop when flowers have appeared.
Gumána	...	The head, or trial well of a *káréz*.
Gurai	Gango ..	A disease which attacks lucerne, melon and vine leaves.
Hadgharae (Músa Khél)	...	Apricot stones. See also *kharmaghz*, *mandaka* and *puchai*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Haud or taláo ...	...	A tank in which *káréz* water is collected.
Haudakae ...	...	A smaller tank.
Héra (Sanjáwi) ...	...	A plot larger than a *kurd*.
Ijára	Théka ...	Lump assessment.
Inám	Muáfi ...	A revenue-free holding. See *máfi* or *mápi*.
In̠tsai (Bori) ...	Dhága ...	Spun wool. See also *nit̠sai* and *wurta*.
Jalatta (Músa Khél) ...	...	An earthen receptacle covered with mats and used for storing grain. See also *jatta*.
Jambast (Bori) ...	...	A fixed cash assessment.
Jár	Mámta ...	A field close to a village enclosed in walls. In Sanjáwi and Bori it means a garden.
Jaríb (Sanjáwi and Músa Khél).	Kachh ...	A survey. See also *kachha*.
Jár Krúnae ...	Sir-wáhida-topa.	The first *kása* (measure) taken out of a heap of grain when measuring it and given to the *mullá*. See also *sarkása*.
Jat (Músa Khél) ...	...	A camel herd. See also *ushba*.
Jatta	...	An earthen receptacle covered with mats and used for storing grain. See also *jalatta*.
...	Jéthi ...	Early wheat as distinguished from *tauda ghanam* or late wheat.
Joa	...	The trench between two ridges in melon fields. See *charai*.
Jok (Duki) ...	...	Open ground where flocks are kept for the night.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Jora	...	A plot of land which can be ploughed by a pair of oxen in 12 hours, also a pair of plough oxen. See also *wrazgoi*.
Jwál	Phinji ...	A sack.
Kachha	...	A survey. See *jaríb*.
Kadhal (Músa Khél) ...	...	A structure built of stone and mud, for storing grain. See *tsaráh*.
Káhdána	...	An earthen structure for storing *bhúsa* (also a pit covered over with earth).
Kakar (Bori) ...	Gandah ...	A dam of brushwood in a stream, to lead off the water. See also *khrah*.
Kákhti	...	Scarcity. See also *dughál*.
Kalae	...	A small plot. See also *kurd*.
Kalang (Dumar) ...	...	Wages in kind paid to an artizan. See also *ahad* and *gata*.
Kamána (Thal) ...	...	Withered (fruit). See also *pézi*.
...	Kami ...	A village artizan. See also *kasbi*.
Kandak	Páhu, Chhálag	A flock of sheep. See also *maya*.
Kandu (Bori) ...	...	An earthen receptacle for storing grain. See *kolai*.
Kankút (Bori) ...	...	A crop cut for experimental purposes.
Kanrae	Wási ...	A piece of land given to a tenant or *mullá* free of rent, for cultivation. See *kotai*.
Kara	Chopé ...	Sowing melons by hand in a line made with the plough. See also *nazún* and *tákúna*.
Karaba	Karab ...	Maize or *juári* stalks.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Karak (Músa Khél) ...	...	Wheat or barley when knots have appeared in the stalks. See also *bandak*.
Karáwa (Bori) ...	Karáwah ...	An official care-taker for crops. See also *nokar*.
Káréz	Káréz ...	An underground water channel.
Karhanra	Rahkár ...	Cultivation. See *kisht*.
Kárígar	...	An artizan especially a *káréz* digger.
Karwanda ...	Bardág ...	Cultivable land lying fallow.
Kasbi	...	A village artizan. See also *kami*.
Kashae	...	A tenant (as distinguished from *bádár* or *kháwand*). See also *bazgar* and *dehgán*.
Katal	Trangar ...	A net for carrying *bhúsa*, etc. See *sawada*, *trangar* and *trát*.
Kats	Kachh, Kachhi.	A plot of cultivable land in the bed of a stream.
Katskhúlae (Músa Khél)	...	Maize flowers. See also *bambal*, *potsakai*, *spalmai* and *tsakhwalae*.
Kauda	...	A sheaf of corn. See also *mutai* and *pulai*.
Kér	Wár ...	A sheep pen. See also *alang*, *shpalghalae*, and *shpol*.
Kháka (Wanéchi) ...	Phéa ...	The first watering of a crop. See also *pánípur*, *sama*, *sama khák* and *wat*.
Khákae (Bori) ...	...	A nursery garden. See also *tél-mung mzakka*.
Kharkhul ...	Kalghar ...	A pair of shears.
Khar-maghz (Wanéchi)	...	Apricot stones. See also *hadgharae*, *mandaka* and *puchai*.

Glossary of principal agricultural, revenue and shepherds, terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Khasíl or khíd ...	Ganál or khwíd.	Green wheat and barley cut for fodder. See also *ganálae* and *mushk*.
Khrah	Gandáh ...	A dam made of brushwood to lead off the water in a stream. See also *kakar*.
Khula band or Khula sarposh.	...	Wells of a *káréz*, the tops of which are covered.
Khushkáwa ...	Déwapáni, Dhaulapáni.	Dry crop area. See *wuchobi*.
Khwa (Bori) ...	...	To clear the land of its shrubs, etc. See also *pása wahal*.
Khwara	Paina ...	The fixed contribution paid to a *mullá*, Saiad or shrine.
Kishmish	...	Raisins. Also the variety of grapes from which raisins are made. See also *watski*.
Kisht	Kisht ...	Cultivation. See also *karhanra*.
Kishti	...	Dried fruit of the *chagháli* apricot.
Kolai	Kulbi, Kalbota.	An earthen receptacle for storing grain. See also *kandu*.
Kotai (Duki) ...	Wási ...	A piece of land given to a tenant or *mullá* free of rent for cultivation. See also *kanrae*.
Kuchlomba ...	...	A sling generally used for driving birds away from the crops. See also *chilomba* or *chilonda* and *shlonza*.
Kúl (Músa Khél) ...	...	An embankment. See also *lath* and *púla*.
Kur	...	The first watering before land is ploughed. See also *náwa*, *séwína*, *wáhíkor*.
Kurai (Bori) ...	...	Small heaps of grain made at the time of *batái*. See also *talai* and *wanda*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Kurak (Duki) ...	...	A hut for storing *bhúsa*.
Kuram	...	Stagnant water. See also *dab*, *danda* and *pandioba*.
Kurd	Kiári ...	A small bed or plot of ground. See also *kalae*.
Lachai (Sanjáwi) ...	...	The buds of vine. See also *thik*.
Lagharwal (Bori) ...	...	Plucking the superfluous leaves of vines.
Láh or Lahar ...	Lahri, Lahr	A hill torrent carrying flood water. See also *mánda* and *shéla*.
Lalún (Bori) ...	...	Weeding.
Langa-ghwa ...	Suári gaún ...	A milch cow.
Lao	Lao ...	Harvesting.
Largba (Músa Khél) ...	...	A labourer engaged to cut and bring fuel.
Lasé (Duki) ...	Chillar ...	Wheat chaff.
Lashtae (Bori) ...	...	A small water channel.
Lásh	...	A melon field or orchard from which all fruit has been picked.
Lath	...	An enbankment. See also *kúl* and *púla*.
Latsa	...	The pole in the centre of the threshing floor, round which bullocks revolve. See also *ghobal mazhwae*.
Latsai or Lasai ...	...	A bundle of dry grass. See *mora*.
Laubána (Bori) or lawae.	Láwa ...	A labourer who reaps a crop.
Lawai	...	Wages paid to the reapers. See also *diharae*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Lawasal or Lawasan ...	Dohna ...	To milk.
Lawastal ...	Wákdena ...	To winnow. See also *bádíkawal*, *dúrawal* and *pákawal*.
Lékha	Topa ...	A fixed rent in kind paid by the tenant to the landlord. See also *bohál* and *topa*.
Lérba	...	A shepherd who tends young kids. See also *dirba* and *rébún*.
Lézhda (Wanéchi) ...	...	A bullock. See *ghwayae*.
Loazhaghae ...	Daror ...	Wages consisting of food, a quantity of wool and cash given to a shepherd during the season when sheep and goats are dry.
Lohár	Lohár ...	A blacksmith. See *push*.
Lora (Bori) ...	...	A stream of perennial water. See also *rod*.
Lwaghzi or Lwaghzungi.	Dojh ...	A milch sheep or goat given on loan.
Máfi or Mápi ...	...	A revenue-free holding (*muáfi*). See *inám*.
Mahsúl	...	The Government revenue in cash or kind. See *gham*.
Málav-ghanam (Músa Khél).	...	A variety of wheat.
Malavibágh ...	...	A vineyard. See *angúro bágh*.
Máldágh or Málgham	Tirni ...	Grazing tax. See *tirni*.
Manae or Mangarae ...	Sáhráh ...	The *kharíf* or autumn harvest.
Mánda	...	A hill torrent carrying flood water. See also *láh* and *shéla*.
Mandaka	...	Apricot stones. See also *hadgharae*, *kharmaghz* and *puchai*.
Mat (Bori) ...	...	Water running slowly owing to a block in a *káréz*. See also *dam*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Máta (Músa Khél) ...	Khéri ...	The first ploughing after a harvest. See also *wáhi*.
Mattana or Matjana-mzakka.	Matti ...	Land which contains silt or *mat*. See also *atana* or *atjana mzakka*.
Maya (Músa Khél) ...	...	A flock of sheep. See also *kandak*.
Miánabar (Bori) ...	...	All cuttings of the lucerne crop the first of which is called *gandasar* and the last *ustrobalsar*.
Miráo	...	A village official appointed by villagers to superintend the division of water and the maintenance of water channels. See also *tagharbánae*.
Mírá or Mírási-mzakka.	Pio-dá de-di-zimín.	Ancestral land. See also *nikat mzakka*.
Mora	...	A bundle of dry lucerne. See also *latsai* or *lasai*.
Mulk	Zimín ...	Landed property. See also *tarka*.
Mushk (Bori) ...	...	Green wheat and barley cut for fodder. See also *gandlai*, *khasil* and *khid*.
Muz or Muzd ...	...	Wages, especially those paid for grinding corn.
Muzdak (Músa Khél)	...	Stone embankments or walls made to protect fields from encroachment by hill torrents. See also *bára*.
Mutai (Bori) ...	Pulián ...	A bundle of crop cut. See also *kauda* and *pulai*.
Nágha	...	Seed sown in a melon field to replace such as have failed.
Nálai	Nár ...	Drilling.
Nár or Nárgora ...	Bhanar ...	Land cleared of its crop.
Nárai	Nár ...	Wheat or barley stubble. See *palála*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Nathi (Músa Khél) ...	...	A water divide. See also *shal* and *taghar*.
Náwa	Siwál ...	The first watering before land is ploughed. See also *kur*, *séwína*, and *wáhikor*.
Náwrína (Músa Khél)	...	Artificial fields prepared by spreading earth in rocky ground.
Nazún (Duki) ...	...	Sowing melons by hand in a line made with the plough. See also *kara* and *tákúna*.
Nihál	...	Young trees.
Nikat mzakka ...	...	Ancestral land. See also *mírás*.
Nitsai (Sanjáwi) ...	...	Spun wool. See also *intsai* and *wurta*.
Nokar	...	An official care-taker for crops. See also *karáwa*.
Núz or Niyúz ...	Púr ...	A flood. See also *séláo*.
Obo khwar (Sanjáwi)	Langh ...	The place for watering flocks. See also *púr* and *walang*.
Ola	Oriág ...	A flock of kids.
Paiwand (Bori) ...	...	Grafting.
Pákawal	...	To winnow. See also *bádikawal*, *dúrawal* and *lawastal*.
Pakhé oba (Sanjáwi)	Kála Páni ...	Perennial water. See also *tori oba* and *zindai oba*.
Palála (Bori) ...	...	Wheat or barley stubble. See also *nár* or *nárgora*.
Páléz	...	The generic term for all cucurbitaceous crops. Also the beds in which they are cultivated.
Pandi oba ...	...	Stagnant water. See also *dab*, *danda* and *kuram*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Pánípur (Músa Khél)..	Phéa ...	The first watering given to a crop. See also *khháka*, *sama*, *sama khák* and *wat*.
Párae (Duki) ...	...	The ground between two channels in a melon field. See also *pushta* and *wuchkora*.
Pargána (Bori and Músa Khél).	Chhatt ...	Sowing seed broadcast. See *poka*.
Paro	Lombar ...	Cash wages paid to a shepherd.
Partsan (Músa Khél)...	...	A sheep or goat set apart for sacrifice at a shrine. See also *darwazh*.
Pása wahal (Duki) ...	...	To clear land of shrubs, etc. See also *khwa*.
Pnaséra (Duki) ...	...	A crop sown late. See also *bobazh* and *tandae*.
Pasta mzakka ...	Kúli zimín ...	Soft soil. See also *potae*.
Patai	Patti ...	A holding.
Patwárae ...	Munshi ...	A village accountant.
Péhae	...	The second watering given to a crop. See also *domandae prépánr* and *swalla*.
Pézi (Bori) ...	...	Withered (fruits) See *kamána*.
Poka (Duki) ...	...	Sowing seed broadcast. See also *pargána*.
Pokh bazgar (Bori) ...	...	The man who first constructs the *lath* round a field, and who then acquires a right of occupancy.
Potae (Músa Khél) ...	...	Soft soil. She also *pastamzakka*.
Potsakai (Músa Khél)	...	Maize flowers. See also *bambal*, *katskhulae*, *spalmai* and *tsakhwalae*.
Prepánr	...	The second watering given to a crop. See also *domandae*, *péhae* and *swalla*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Pror	Boh ...	Chopped straw. See also *boh.*
Puchai	...	Apricot stones. See also *hadgharae*, *kharmaghz* and *mandaka.*
Puch khurda mzakka	...	Village or common land. See also *sharíka mzakka*, *tumani mzakka* and *ulsi mzakka.*
Pukai (Bori) ...	...	Unripe fruit especially apricots.
Púla	...	A small embankment. See also *kúl* and *lath.*
Pulai	Pulián ...	Sheaf of corn. See also *kauda* and *mutai.*
Pur (Hamzazai) ...	...	The place for watering flocks. See also *oba khwar* and *walang.*
Push	Lohár ...	A blacksmith. See also *lohár.*
Pushta (Bori) ...	...	The ground between two channels in a melon field or vineyard. See also *parai* and *wuchkora.*
Rágha	...	Stony land along the skirts of a hill.
Rakae (Toi Circle) ...	...	A crop watcher. See also *zgharoi.*
Rama ...	...	A flock of sheep as distinguished from *tawae*, a flock of goats.
Ras ghobal (Músa Khél)	Gádér ...	The second threshing as distinguished from *ghobal* or first threshing. See also *sparkhae.*
Rébún (Wanéchi) ...	...	A shepherd who tends young kids. See also *dirba* and *lérba.*
Riása	Khillán ...	A grain heap on the threshing floor.
Rod	...	A stream of perennial water. See also *lora.*

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Sagana or Sagai mzakka.	Nalchhíri, Watkar	Sandy soil; also sandy soil containing gravel. See also *zhaghar* and *zhaghlina mzakka.*
Sála (Bori) ...	...	A shepherd's hut.
Sama	...	The first watering given to a crop. See also *kháka, pánipur, samakhák,* and *wat.*
Samakhák (Músa Khél)	...	The first watering given to a crop. See also *kháka, pánipur, sama* and *wat.*
Samchín or Sangchín...	...	Lining a water channel with stones.
Samsor or Sáp ...	Nisri ...	A crop of wheat or barley in which all the ears of corn have appeared.
Sarchák ...	...	An open channel in the middle of a *káréz.*
Sarkab (Sanjáwi) ...	...	Cutting wheat and barley to strengthen the plants.
Sar kása	...	The first *kása* (measure) taken out of a heap of grain when measuring it, and given to the *mullá.* See also *járkrúnae.*
Sarnáma tsa (Duki) ...	...	The well in a *káréz* next to the *gumána.*
Sarrah	Páh ...	Manure. See also *dub* or *dup.*
Sarsáya	Ushar ...	A quantity of grain given annually by each family to the village *mullá.*
Sar shéwa (Duki) or Sarzawari mzakka (Músa Khél).	Sham, Takh...	Fields situated on the slopes of hills.
Sawada	...	A net for carrying *bhúsa,* etc. See also *katal, trangar* and *trát.*
Séláo	...	A flood. See also *núz* or *niyúz.*
Séka	Pháka ...	Chaff scattered on the threshing floor apart from the main heap.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Tákúna (Bori) ...	Chopé ...	Sowing melons by hand in a line made with the plough. See also *kara* and *nazún*.
Talai (Duki) ...	...	Small heaps of grain made at the time of *batái*. See also *kurai* and *wanda*.
Tandae (Bori) ...	...	A crop sown late. See also *bobazh* and *pásêra*.
Tandob (Sanjáwi) ...	...	Irrigated land. See also *zindai mzakka*.
Tarka (Músa Khél) ...	...	Landed property. See also *mulk*.
Tarnáwa or tarnob ...	Parnála ...	A wooden aqueduct. See also *bél*.
Tawae	Chhálág ...	A flock of goats.
Télmung	...	Seedlings.
Télmung mzakka ...	...	Nursery garden. See also *khákae*
Télo (Duki) ...	...	Weaning time.
Thik (Duki) ...	...	The buds of the vine. See also *lachai*.
Tilérae	Toba ...	A small plot of level ground with a spring of water among hills.
Tirkha mzakka ..	...	Salt land. See also *sharana mzakka*.
Tirni (Músa Khél) ...	...	Grazing tax. See also *máldágh* and *málgham*.
Topa or haq-i-topa ...	...	Rent paid in kind by a tenan to a landlord. See also *bohál* and *lékha*.
Tora mzakka ...	Káli zimín ...	Black soil, the best kind of land.
Toré solé ...	...	A variety of unhusked rice.
Tori oba ...	Kála páni ...	Perennial water. See also *pakhe oba* and *zindai oba*.
Trangar ...	...	A net for carrying *bhúsa*. See also *katal*, *sawada* and *trát*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Trát (Bori) ...	...	A net for carrying *bhúsa*, etc. See also *katal*, *sawada* and *trangar*.
Tsáh ...	Khuh ...	A well.
Tsakawal (Bori) ...	...	To give fodder to sheep while at home. See *shúma*.
Tsakhobae ...	...	A small plot of cultivated land with a small quantity of permanent water on a hillside.
Tsakhwalae ...	...	Maize flowers. See also *bambal*, *katskhulae*, *potsakai* and *spalmai*.
Tsandal ...	...	To shake the fruit off a tree such as the mulberry, apricot, apple, etc.
Tsapar ...	...	A bundle of thorny sticks used for threshing grain.
Tsaráh ...	...	A structure built of stones and mud for storing grain. See also *kadhal*.
Tsárae ...	...	Lit. a spy. The first few plants which appear in a field; see also *ghwazhúna*.
Tsarkhae ...	Charkha ...	A spindle for spinning wool.
Tsatae ...	Púli ...	A bundle of corn or a man's load given to an artizan or a *mullá*.
Tukhm ...	Bijh ...	Seed.
Tumani mzakka ...	...	Village or common land. See also *puch khurda*, *sharíka* and *ulsi mzakka*.
Urbusa (Músa Khél) ...	Búta ...	Sods of turf. See also *busae* or *buzhae*.
Ulsi mzakka ...	...	Village or common land. See also *puch kurda*, *sharíka* and *tumani mzakka*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Ush ...	Uth ...	A camel.
Usha ...	Dáchi ...	A she-camel.
Ushba ...	Jat ...	A camel-herd. See also *jat*.
Ustrobal bar (Bori) ...	...	Short lucerne plants grazed by cattle.
Uzba ...	...	A shepherd who tends goats only.
Viála ...	...	A water channel.
Wad ...	...	The commencement of a harvest.
Wáh ...	...	A main water channel.
Wáhi (Bori) ...	...	Land ploughed after harvest. See also *máta*.
Wáhi-kor (Bori) ...	...	The first watering before land is ploughed. See also *kur*, *náwa* and *séwina*.
Walang (Músa Khél)...	...	The place for watering flocks. See also *obo khwar* and *pur*.
Wand ...	...	An earthwork dam in a stream. See also *awandae*.
Wanda ...	...	Small heaps of grain made at the time of *batái*. See also *kurái* and *talai*.
Wandar ...	Tand, Gála...	A rope provided with nooses to which sheep and goats are tethered.
Wánra ...	Dhira ...	A heap of chaff on the threshing floor. In Duki it means a heap of threshed corn before grain is separated.
Warai ...	Un ...	Sheep or camel wool.
Warg ...	Jutti ...	A sheep's fleece.
Warkh ...	...	The mouth of a water channel.
Warzana (Sanjáwi) ...	...	To prune trees.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(continued).

Term in Pashtú.	Term in Khétráni.	Explanation.
Washli mzakka (Músa Khél.) ...	...	Land held individually, not jointly.
Wat (Duki) ...	...	The first watering of a crop. See also *khāka*, *pánipur*, *sama* and *samakhák*.
Watski ...	...	Raisins.
Wazhae ...	Sang ...	An ear of corn.
Wazhae chángi (Sanjáwi), Wazhae tsán or wazhae tsánae	Sangen hári	A gleaner.
Wrazgoi (Sanjáwi) ...	...	A plot of land which can be ploughed by a pair of oxen in 12 hours. See also *jora*.
Wuchkora (Sanjáwi)...	...	The ground between two channels in a melon field. See also *parae* and *pushta*.
Wuchobi ...	...	Dry or rain cultivation. See also *khushkáwa*.
Wurta ...	Dhága ...	Spun wool. See also *intsai* and *nitsai*.
Wurzu (Duki) ...	...	A leather covered rope with which bullocks are yoked to the plough. See also *badríza*.
Wuzburae ...	Jutti ...	A goat's fleece made into a bundle.
Wuzghúni ...	Jat ..	Goat hair.
Yivi or Yivgi-wahal ...	Jora wáhana	Ploughing.
Zanrae	...	Melon seed. See also *biján*.
Zarae	...	A crop sown at the proper season.
Zari (Músa Khél) ...	Mul gidi zimín.	Self-acquired land, also divided land.
Zgharoi	Rákha ...	A crop watcher. See also *rakae*.
Zhaghar (Sanjáwi) or Zhaghlina mzakka.	...	Sandy soil containing gravel. See also *sagana* or *sagai mzakka*.

Glossary of principal agricultural, revenue and shepherds' terms in use in the Loralai District—(concluded).

Term in Pashtú.	Term in Khétráni.	Explanation.
Zhangúra (Sanjáwi) ...	...	A bunch of grapes. See also *barongai*.
Zhar-fasal or Zhar-lambi (Músa Khél).	Lákhásang ..	The yellowish ears of ripe corn.
Zhírai (Sanjáwi) ...	Wál ...	The soft hairs on the ears of maize.
Ziam	Sédár ...	Swampy ground.
Ziári solé	...	A variety of unhusked rice.
Ziári wrízi ...	...	A variety of husked rice.
Zindai mzakka ...	...	Irrigated land. See also *tandob*.
Zindai Oba ..	...	Perennial water. See also *pakhé oba* and *toré oba*.
Zír (Sanjáwi) ...	...	A vine-tendril. See also *spanrsae*.
Zola (Sanjáwi) ...	...	A bullock's sack. See also *gawanda* or *gonda*.
Zranda or zandra ...	Jandrah ...	A water mill.
Zúnga (Wanéchi) ...	...	To thresh. See also *ghobal*.

APPENDIX V.

RULES FRAMED BY THE INTER-TRIBAL JIRGA AT FORT MUNRO IN 1900 IN CONNECTION WITH THE PREVENTION OF CRIME BETWEEN BALUCHISTAN AND THE BALOCH TRIBES ON THE DERA GHAZI KHAN BORDER.

Hamsáya means—(*a*) one who after committing an offence leaves his *tuman* and takes shelter in another *tuman*;

(*b*) one who being accused of adultery leaves his *tuman* and takes refuge in another *tuman*;

(*c*) one who on account of his own private affairs takes up his abode in another *tuman*.

Any one who goes to another *tuman* for cultivation, for purposes of grazing, or to earn his livelihood as a temporary measure, is not considered as a "hamsáya."

Cases of offences other than adultery.

Rule I.—No offender who has committed an offence under the Indian Penal Code in the Districts of Baluchistán, or Déra Gházi Khán, shall be allowed to take refuge as a *hamsáya* in any other *tuman*, except in cases of adultery in connection with which detailed rules are given in Rule III. Any man who contrary to this rule harbours such refugee will be liable to pay the following penalty:—

(*a*) If the refugee has committed theft of cattle or other petty offence, from Rs. 50 to Rs. 100.

(*b*) If he has committed a more serious offence, such as dacoity, robbery, murder, etc., from Rs. 100 to Rs. 200.

If any offender takes refuge with any one of another tribe, it will be the duty of the person, with whom he has taken refuge, to inform his chief, who will communicate the information to the authorities.

When a man absconds after committing an offence, his own chief should apply to the authorities of his District to issue the necessary notice to other chiefs for his apprehension through the District Officer.

Any one who harbours a criminal and keeps the matter secret and does not arrest him shall be liable to the punishment named above.

Rule II.—The burden of the responsibility for the acts of a *hamsáya*, who has taken refuge with a tribe for crimes other than that of adultery, shall be the same as laid down in Rule III.

Cases of adultery.

Rule III.—If any man carries off a married woman, or if a woman is killed on account of adultery and the guilty man escapes, he is entitled to take refuge with another *tuman* as he cannot remain in his own *tuman* until the case has been decided or a settlement effected. As regards the responsibility for this man's actions, the tribe which has harboured him will be held responsible for any offence committed by him. If, for instance, one Zaid belonging to the Gurchánis takes up his abode in the Marri country, and there commits adultery and is killed on that account, his heirs, who are Gurchánis, will have no right to receive nor will they be called upon to give any compensation. Further, if a Zaid is killed in any other *tuman*, for committing a crime, in that case also the Gurcháni *tuman* or his heirs will have no right to compensation; but the *tuman* which has harboured him will be entitled to any compensation that may be awarded, and the same *tuman* will also be responsible for any offence that has been committed by him. If he dies, his heirs will be entitled to bring back his wife and children and also to receive any property he may have acquired.

Rule IV.—If a *siyáhkár* (adulterer) takes refuge with any other *tuman*, and is killed on account of the adultery by his own tribe, the tribe with which he has taken refuge is not entitled to take revenge and the offending tribe will be held responsible to Government only.

Rule V.—If a man takes up his abode as a *hamsáya* in any other *tuman* with the permission of his chief and commits a murder or other offence, the *tuman* with whom he is living as a *hamsáya* is responsible for his actions; but if the man is himself killed, the compensation will go to his heirs.

Rule VI.—A tribe is not responsible for the actions of any person who takes up his abode temporarily with it for purposes of cultivation or for grazing. In this case his heirs and his own *tuman* is responsible for his acts. If, however, his own *tuman* or the chief of his *tuman* are unwilling that he should remain with the other *tuman*, it is the duty of the *tuman* with whom he is living and of its chief to turn him out, or to make a report to the authorities, so that the necessary orders may be issued.

Rule VII.—If a man takes up his residence temporarily in another *tuman* for the purposes of grazing or cultivation, and if he commits any crime in British territory, he shall be liable to the punishment provided under British law, but he shall be considered as belonging to his own original tribe.

Rule VIII.—These rules apply only to those cases, in which the tribes of Déra Gházi Khán and Thal Chotiáli are jointly concerned. They do not apply to cases in which the Punjab tribes are alone concerned as these are governed by rules and regulations already in force.

Cattle-l ing: prevent of.

In order to prevent cattle-lifting between Déra Ghází Khán and the old Thal Chotiáli District, the following rules were drawn up by Major Macdonald, then Deputy Commissioner, Thal Chotiáli, in consultation with Mr Gracey, Deputy Commissioner of Déra Ghází Khán. They received the sanction of the Agent to the Governor-General and have been enforced since January 1902:—

"All Bugtis, Marris and others taking cattle for sale into the Déra Ghází Khán District proper or any part of the Mazári, Gurcháni and Dríshak *tumans* should take a pass signed by a tahsíl official or by a patwári of the Bárkhán tahsíl or by the náib-tahsíldár, Kohlu, or by the Bugti or Marri chief giving a description of the cattle to be sold.

"2. Any person found bringing cattle for sale without a pass shall be at once seized and taken to the nearest Magistrate or Police station pending enquiries. The absence of such a pass will be held to be *primâ facie* proof that the animal in question is stolen and the possessor shall be required to establish his rightful title to it.

"3. Similar passes will be issued in respect of cattle taken from the Déra Gházi Khán District to the Thal Chotiáli Agency for sale. Such passes will be issued by the tahsíldár or náib-tahsíldár, the *tumandárs* or jemadárs or Border Military Police.

"4. *Lambardárs* and *mokaddams* will be required to report the arrival in their villages of any cattle on sale without a proper pass.

"5. Passes will be printed on orange paper in duplicate; one copy will be given to the applicant for each head of cattle in his possession showing its full description, and the counterfoil will be kept by the official issuing the pass. When an animal is transferred from one owner to another, the pass will be transferred with it.

"6. The rules will apply to all cattle including camels and horses but excepting sheep and goats.

"7. Every officer signing a pass should add his full official designation after his signature."

APPENDIX VI.

AGREEMENT.

WHEREAS the Chief of the Legháris and his family have certain claims in respect of the portions of the Bárkhán tahsíl in Baluchistán which are known as Leghári-Bárkhán and Vitákri: and whereas it is expedient to effect a final and complete adjustment of those claims: Sardár Tagia Khán, on his own behalf and as representing the other claimants, hereby agrees to the following arrangements:—

1. The Leghári claimants will be recognised as the superior proprietors (*ála máliks*) of all land in the tracts known as Leghári-Bárkhán and Vitákri.

2. These tracts comprise at present nine cultivated villages or settlements, namely—

(1) Bádra.

(2) Jhalli (including Leghári Kot).

(3) Nílra.

(4) Jahándún or Náhar Kot (including Kharra).

(5) Sangiáli and Kákor.

(6) Vitákri.

(7) Lákhibhar.

(8) Biháni.

(9) Drigri.

The limits of each of these villages or settlements will be demarcated under the orders of the Agent to the Governor-General. To each village or settlement will be allotted, not only its lands which have already been brought under cultivation, whether irrigated or unirrigated, but also a reasonable amount of waste land, to provide for extension of cultivation and grazing. The total amount of waste land thus allotted will not exceed the total existing area of irrigated cultivation, that is to say, about 7,300 acres.

3. Within the villages or settlements as demarcated in accordance with the last paragraph, the cultivating occupants, such as Náhars, etc., will be recognised as inferior proprietors

(*adna máliks*) of all land and water. They will be free to extend cultivation as they please within the said limits. They will also be at liberty to transfer amongst themselves their proprietary and occupancy rights. But the Leghári claimants will have the right of pre-emption in respect of such transfers to persons other than the Náhars, etc., who are now in cultivating occupancy.

4. In the villages or settlements of the inferior proprietors as defined above, the Government land revenue at the rate of one-fifth of the gross produce, will continue to be ascertained and collected entirely by the officers of Government. The Leghári claimants will be at liberty to send an agent to be present when the crops are divided or appraised by the Government officers.

5. Out of the Government revenue, as ascertained and collected in accordance with the last paragraph, the Leghári claimants will be entitled to receive from the Government officers, in recognition and consideration of their rights of superior proprietorship (*ála milkiyat*) a fixed proportion in kind, namely, one-third. The claimants will arrange to take delivery of this share promptly at the threshing floors, or in such other way as they may arrange with the consent of the District Officer. They will have no right to take anything but this share or to interfere in any way with the revenue collections, or with the inferior proprietors or cultivators.

6. If the Agent to the Governor-General desires hereafter to introduce a cash settlement of the land revenue, the terms of the two preceding paragraphs will be open to revision, but not so as to reduce, without the consent of the Leghári claimants, the proportion of the revenue in kind payable to them.

7. The Leghári claimants will have no right to share in, or to interfere in any way with, existing sources of irrigation in the villages or settlements of the inferior proprietors, as defined above, to their prejudice or without their consent.

8. In all land outside the villages or settlements of the inferior proprietors, the Leghári claimants, as the superior proprietors (*ála máliks*), will be entitled for a period of ten

years, from the 1st April 1897, to regulate cultivation, that is to say, by permitting or prohibiting it. No land revenue will be taken by Government on any such land during the said period of ten years.

9. If the Leghári claimants bring any such land as is mentioned in the last paragraph under cultivation within the term of ten years, either by cultivating it themselves with tenants-at-will or by carrying out substantial works of improvement, such as kárézes, wells and embankments (*lathbandi*), they will be recognised by the Government as the full proprietors of that land; and the Government revenue demand thereon will ordinarily be taken from them at a rate not exceeding one-sixth of the produce. It will rest with the Agent to the Governor-General to remit or reduce the revenue demand on account of orchards or specially expensive improvements.

10. If any of the land referred to in paragraph 8 is not cultivated, or substantially improved, by the Leghári claimants, but is brought under cultivation and improved by others with their permission, the claimants will in respect to such land occupy the position of superior proprietors (*ála máliks*) only. The Goverment share of the produce of such land will be one-fifth, of which, as in the case of the villages mentioned in paragraph 2, the Leghári claimants will receive one-third.

11. If after the said period of ten years, any of the land mentioned in paragraph 8 remains uncultivated, the Government will be at liberty to arrange as it thinks best for the cultivation of such land, either through the Leghári claimants or otherwise. But in all land so brought under cultivation the Leghári claimants will retain their right of superior proprietorship, and will be entitled to receive one-third of the share of the produce realised by the Government.

12. The claimants will have no share in the tax on cattle (*tirni*), and the regulation of rights of grazing over all uncultivated land will rest with the Government alone.

13. The Leghári claimants waive all claims to share in revenue collected by the Government in the past.

14. A share in Leghári-Bárkhán or its produce was mortgaged about fifty-three years ago by the Leghári Chief

to the family of the Khétrán Chief. The Legbári claimants are prepared to redeem this mortgage forthwith.

15. In future all matters connected with the tracts in question wili be exclusively dealt with in the ordinary course of business by the officers of the Baluchistán Agency. The Leghári claimants will always conduct themselves as loyal subjects of the British Government in Baluchistán.

16. Sardár Tagia Khán gratefully accepts the arrangements specified above, on behalf of both himself and the other claimants, in full satisfaction of all their claims connected with Leghári-Bárkhán and Vitákri.

QUETTA : 9*th April* 1897. (Sd.) SARDAR TAGIA KHAN, LEGHARI.

Order by the Agent to the Governor-General :—

I approve and sanction the arrangements specified above, as a compromise, and in full satisfaction of all the Leghári claims. I shall always be prepared to treat the Leghári claimants liberally in connection with substantial and expensive works of improvement. An Urdu translation of this memorandum has been prepared and signed.

QUETTA : *The* 9*th April* 1897. (Sd.) H. S. BARNES, *Agent to the Governor-General in Baluchistán.*

(SUPPLEMENT TO PARAGRAPH 7 OF AGREEMENT.)

7 (*a*) The Leghári claimants may use the surplus water from such existing sources of irrigation for lands beyond the limits of the village lands mentioned in paragraph 2, and no revenue shall be claimed thereon for the period of ten years alluded to in paragraph 8, but it shall be understood that the inferior proprietors have a full and indisputable claim to the whole of the water if they can utilise it, whether for *rabi* or for *kharíf* cultivation.

7 (*b*) If the Leghári claimants acquire by purchase or otherwise the shares of any of the inferior proprietors in the existing sources of irrigation, the water so acquired will be used in the irrigation of the village lands mentioned in paragraph 2, and not beyond those limits as recently surveyed and demarcated.

(Seal)

Seal of SARDAR TAGIA KHAN,

March 8th, 1899. LEGHARI.

(Sd.) E. G. COLVIN,

Revenue Commsr. in Baluchistán.

Order extending the Settlement by seven years from the 1st of April 1907.

The Leghári Chiefs having petitioned through Sirdár Dín Muhammad Khán for an extension by ten years of the period during which, under Clause 8 of the Memorandum of Settlement of 9th April 1897, they were allowed to bring under cultivation, free of land revenue, all lands outside the limits of the villages and settlements in Leghári Bárkhán as demarcated in 1897, the Hon'ble the Agent to the Governor-General in Baluchistán is pleased to issue the following orders :—

I.—With respect to the portions of the lands (measuring approximately 14,152 acres) which remained unreclaimed waste at the termination on 31st March 1907 of the original term of ten years, the Leghári Chiefs are hereby granted an extension for a further period of seven years of the privileges granted them in Clauses 8 to 10 of the aforesaid Memorandum.

APPENDIX VII.

Extract from an agreement regarding proposed boundary between the Zhob Agency in Baluchistán and the country under the political control of the Deputy Commissioner of the Déra Ghàzi Khán District, in the Punjab, signed by R. E. Younghusband, Offg. Deputy Commissioner, Déra Gházi Khán, and A. H. McMahon, Assistant Political Agent, Zhob, in 1891.

* * * * * *

On reaching the Khujja Pass, the boundary turns to the east, along the Walbel and Drighi Shams, which form the southern watershed of the Phatanbel valley, until it reaches the ridge of hills to the west of the Manjrél valley; it keeps along this ridge in a south-south-westerly direction for about three or four miles to the southern watershed of Manjrel valley, which it follows to the ridge running along the east of that valley; it then runs north-north-east along that ridge and the Loladhér Sham, after which it turns to the east and runs along the northern watershed of the Rakhni stream until it reaches the watershed of the tributaries of the Vidor stream; it thence turns south and keeps along the watershed between the tributaries of the Vidor and Rakhni streams for some few miles.....

Joint report by Captain Coldstream, Political Assistant, Déra Gházi Khán, and Lieutenant C. Daukes, Assistant Political Agent, Loralai.

We met at Loladhér on the 25th February 1905, our object being firstly to define the boundary line between the Khétráns and Bozdárs (which also constitutes the Punjab and Baluchistán boundary in this direction) which had been originally laid down by Messrs. Younghusband and McMahon, and subsequently indicated on the ground by Messrs. Wallace and Forbes—the latter had erected "katcha" pillars to mark the line but these had been destroyed and quarrels had arisen between the tribes regarding their exact position. Secondly, to decide on the amount of compensation, if any, to be paid by the Bozdárs to the Khétráns on account of encroachments alleged to have been made within the boundaries of the latter by the former.